

**PROVINCIAL ADMINISTRATION OF KWAZULU-NATAL  
DEPARTMENT OF PUBLIC WORKS**



**KWAZULU-NATAL PROVINCE**  
**PUBLIC WORKS & INFRASTRUCTURE**  
REPUBLIC OF SOUTH AFRICA

**BILLS OF QUANTITIES**

with GCC for Construction Works - Second Edition 2010

**CONTRACTUAL SECTION**

**ONE VOLUME APPROACH**

**VOLUME 2 OF 4 (AGREEMENT, PRICE DATA & SCOPE OF WORKS)**

**NEW 28 BEDDED MALE & FEMALE INPATIENT & OUTPATIENT MENTAL  
HEALTH UNIT**

**Engineer/Principal Agent**

Charles Taylor Architects  
7A Townsend Road  
Ballito  
KwaDukuza  
4420  
032-946 3853 - Tel Number  
032-946 3853 - Fax Number  
charles@ctab.co.za

**Architect**

Charles Taylor Architects  
74 Townsend Road  
Ballito  
KwaDukuza  
4420  
032-946 3853 - Tel Number  
032-946 3853 - Fax Number  
charles@ctab.co.za

**Employer:**

Head: Public Works  
KZN Department of Public Works  
Private Bag X 9041  
**PIETERMARITZBURG**  
3200  
Tel Number: 033-897 1300  
Fax Number: 033-897 1399

**Region:**

Regional Manager  
KZN Department of Public Works  
X54336  
**Mayville**  
4091  
Tel Number: 031-203 2210  
Fax Number: 031-261 5044

**Tender Number: ZNTD 02753W**

**CIDB Grading: 8GB or Higher**

**ECDP Number: N/A**

**Project Code: 048152**

**Document Date: As Per Tender Advert**

<b>Contracting Party:</b>	_____
<b>CIDB Registration number:</b>	_____
<b>Central Suppliers Database Registration Number:</b>	_____

## NEW 28 BEDDED MALE & FEMALE INPATIENT & OUTPATIENT MENTAL HEALTH UNIT



**KWAZULU-NATAL PROVINCE**  
PUBLIC WORKS & INFRASTRUCTURE  
REPUBLIC OF SOUTH AFRICA

## THE CONTRACT

### 1. PART C1: AGREEMENT AND CONTRACT DATA

Page No.

C1.1	Form of Offer and Acceptance	1
C1.2	Contract Data	3
C1.3	Form of Guarantee	12

### 2. PART C2: PRICE DATA

C2.1	Pricing instructions	16
C2.2	Preliminaries for GCC for Construction works - 2nd Edition 2010	20
C2.3	Bills of Quantities - Section No. 2: Builder's Works	54
C2.4	Bills of Quantities - Section No. 3: Electrical Works	242
C2.5	Bills of Quantities - Section No. 4: Mechanical Works	308
C2.6	Bills of Quantities - Final Summary	396

### 3. PART C3: SCOPE OF WORKS

C3.1	Scope of Works	397
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## IMPORTANT NOTICE TO TENDERERS

- Any reference to words Tender or Tenderer herein and/or in any other documentation shall be construed to have the same meaning as the words Tender or Tenderer. These forms are for internal and external use for the KZN Department of Public Works, Provincial Administration of KwaZulu-Natal.
- With regards to the provision of electronic Bills of Quantities, it must be noted that DPW SCM is against the issue of electronic Bills of Quantities.
- The fully priced Bills of Quantities to be submitted at tender closing.
- Where documents were not provided at the tender office, the Tenderers to provide proof of payment before date and time of the relevant briefing session to DPW to facilitate the issue of the tender documents. Additional tender documents will be copied. However, all tender documents to be collected from the **KZN Department of Public Works, 455A King Cetshwayo Highway, Mayville, Durban, 4001**. No tender documents will be issued from the Consultants office or at the tender briefing.
- "Quality" shall mean totality of features and characteristics of a product of service that bears on the ability of the product or service to satisfy stated or implied needs.



6. The **Total (Including Value Added Tax) on the Final Summary of the Bills of Quantities** must be carried to the **"Offer"** part only of the **Form of Offer and Acceptance - T2.21**
7. **"Enterprise"** shall mean the legal Tendering Entity or Tenderer who, on acceptance of the Offer, would become the **"Contractor"**.
8. **No alternative tenders will be accepted.**
9. The tender box is generally open during official working hours.
10. Tenderers should ensure that tenders are delivered timeously to the correct address. If the tender is late, it will not be accepted for consideration.
11. The requirements in respect of the application of either 80/20 and 90/10 preference points scoring system, is contained in part T2.34 - Functionality Criteria.
12. All tenders must be submitted on the official forms - (Not to be re-typed).
13. A SANAS approved current certified copy of B-BBEE status level verification certificate must be submitted in order to qualify for preference points for B-BBEE or an original current sworn affidavit in respect of SMME/QSE in the prescribed DTI format for the latest completed financial year of the bidding entity must be submitted. Tenderers to note that any certified copies of sworn affidavits must be stamped by the commissioning authority, must have the full particulars of the commissioner and if commissioned by SAPS must have the SAPS stamp as well as rank, initials, surname in printed letters and signature of the official on the document.
14. The **CIDB Contractor Participation goals and CIDB Build programme** will be implemented on these works and Tenderers must familiarise themselves with the requirements of this programme and desired implementation goals thereof and should refer to guide in the Annexures.
15. **Tenders will be evaluated in the following sequence:**

**Phase 1: Administrative Compliance**

- a. Form of Offer and Acceptance (Bound into section 1 of 4) (T2.21) to be fully and correctly completed.
- b. Attendance of the compulsory pre-tender briefing meeting, where a **physical or in person meeting is held**, Site inspection Certificate (T2.10) is to be completed and signed in full.
- c. Attendance of the compulsory pre-tender briefing meeting, where a **virtual meeting** is to be held, a **link to join the compulsory briefing session must be requested as stipulated in the tender advertisement on or before the date stipulated in the tender advertisement. Tenderers to note that the accepted tenderer's email for the briefing session will be the one that the Tenderer has registered with Central Supplier Database (CSD).**
- d. Central Supplier Database Registration: All bidders must be registered on the Central Supplier Database (T2.26).
- e. Appropriate active CIDB registration of bidding entity as per the requirements of this bid (T2.27).
- f. For Joint Venture combinations the following will be applicable: Three Grade 7 contractors within the class of work of the works or One Grade 8 lead partner within the class of work with any grade combination within the class of work of the works.

- g. Completion and submission of all returnable documents as contained in this bid document in full (T2.1 to T2.35).

**Phase 2: Special Conditions: Quality Criteria (All the appropriate and requested information to be submitted in full)**

- a. Full priced Bills of Quantities. The Bills of Quantities must be fully priced and submitted with the contractual section of this tender document at the closing date of the tenders.
- b. Experience: Firms experience in Building Projects of CIDB Grade 7GB or Higher verified with an Award letter or Purchase Order **AND** Practical Completion certificate or Final Completion certificate.
- c. Competency: Team member's experience and qualifications - certified copies of qualifications and CV with tracable references (For tracable references the proforma to be used can be found as Appendix A in Vol 1 of 4).
- d. Financial standing: Provide financial ability of the company to fund the project by providing company financials that reflect cash availability.
- e. Proposed Methodology, Approach and Programme: Verified by a detailed method statement and programme to be submitted.
- f. Specific Goal 1: Ownership by Black people.

**FAILURE TO SUBMIT ANY OF THE ABOVE DOCUMENTATION IN THE PRESCRIBED FORMAT WILL, LEAD TO IMMEDIATE DISQUALIFICATION.**





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REPUBLIC OF SOUTH AFRICA

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**NEW 28 BEDDED MALE & FEMALE INPATIENT & OUTPATIENT MENTAL HEALTH UNIT**

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**THE CONTRACT**



**KWAZULU-NATAL PROVINCE**  
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**NEW 28 BEDDED MALE & FEMALE INPATIENT & OUTPATIENT MENTAL HEALTH UNIT**

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**C1 - AGREEMENT AND CONTRACT DATA**





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**NEW 28 BEDDED MALE & FEMALE INPATIENT & OUTPATIENT MENTAL HEALTH UNIT**

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**FORM OF OFFER AND ACCEPTANCE**

## FORM OF OFFER AND ACCEPTANCE

Tender No - ZNTD 02753W



**KWAZULU-NATAL PROVINCE**

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**NEW 28 BEDDED MALE & FEMALE INPATIENT & OUTPATIENT MENTAL HEALTH UNIT**

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### **C.1.1 - FORM OF OFFER AND ACCEPTANCE**

THE OFFER AND ACCEPTANCE FORM IS BOUND INTO **SECTION 1** (See end of Returnable Documents) OF THIS DOCUMENT AS PART OF THE RETURNABLE DOCUMENTS. ONCE A CONTRACT IS CONCLUDED WITH A SUCCESSFUL TENDERER, THIS PAGE WILL BE REPLACED WITH THE FILLED AND SIGNED OFFER AND SIGN ACCEPTANCE BY THE EMPLOYER AND IT WILL BECOME PART OF THE CONTRACT.

PLEASE SUBMIT THE OFFER AND ACCEPTANCE FORM WITH THE OTHER RETURNABLE DOCUMENTS.





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**NEW 28 BEDDED MALE & FEMALE INPATIENT & OUTPATIENT MENTAL HEALTH UNIT**

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**C1.2 - CONTRACT DATA**

C 1.2 CONTRACT DATA: with GCC for Construction Works - Second Edition 2010	
CONTRACT DATA FOR:	
NEW 28 BEDDED MALE & FEMALE INPATIENT & OUTPATIENT MENTAL HEALTH UNIT	
Tender no:	ZNTD 02753W
	The General Conditions of Contract are the clauses contained in the General Conditions of Contract (2010) (Second Edition) published by the South African Institution of Civil Engineering. Copies of these conditions of contract may be obtained through most regional offices of the South African Institution of Civil Engineering, telephone number 011 805 5947 or by visiting their website at www.saice.org.za.
	The contractor shall achieve in the execution of this contract the Contract Participation Goals (CPG) relating to the engagement of targeted enterprises as established in the CIDB Standard for Indirect Targeting for Enterprise Development through Construction works Contracts Published in Government Gazette No 48491)
	<b>CONTRACT SPECIFIC DATA</b> The following contract specific data are applicable to this contract:
	<b>CONTRACT VARIABLES</b>  This schedule contains all variables specific to this document and is divided into pre-tender and post-tender categories. The pre-tender category must be completed in full and included in the tender documents. Both the pre-tender and post-tender categories form part of this agreement.  Spaces requiring information must be filled in, shown as 'not applicable' or deleted <u>but not left blank</u> . Where choices are offered, the non-applicable items are to be deleted. Where insufficient space is provided the information should be annexed hereto and cross referenced to the applicable clause of the schedule. Key cross reference clauses are italicised in [ ] brackets. <b>The Engineer/Principal Agent, in accordance with Clause 1.1.1.16, shall obtain the specific approval from the Employer before executing any of his functions according to the "Conditions under which Consultants are appointed", or in the event where an employee of the Employer represents the Employer, the relevant General Delegations applicable at the time of executing his/her duties as described in Clause 3.1.2.</b>
<b>Part 1: CONTRACT DATA PROVIDED BY THE EMPLOYER:</b>	
	<b>PRE-TENDER INFORMATION</b>
	<b>CONTRACTING AND OTHER PARTIES</b>
[1.1.1.15]	<b>Employer:</b> <b>Head: Public Works (KZN Department of Public Works: Province of KwaZulu-Natal)</b> Postal address: <b>Private Bag X 9041</b> <b>PIETERMARITZBURG</b> <b>3200</b> Tel: <b>033-897 1399</b> Fax: <b>033-897 1300</b>
[1.2.1.2]	Physical address: <b>191 Prince Alfred Street</b> <b>PIETERMARITZBURG</b> <b>3200</b>
[1.1.1.16]	<b>Employers Agent 1</b> <b>Charles Taylor Architects</b> Agent's service: <b>Architect</b> Postal address: <b>74 Townsend Road</b> <b>Ballito</b> <b>4420</b> Tel: <b>032-946 3853</b> Fax: <b>032-946 3853</b>
	<b>Employers Agent 2</b> <b>Cepma Engineering Worx (Pty) Ltd</b> Agent's service: <b>Quantity Surveyor</b> Postal address: <b>No. 8; 220 Inanda Road</b> <b>Waterfall</b> <b>3652</b> Tel: <b>082-952 6779</b> Fax: <b>N.A</b>
	<b>Employers Agent 3</b> <b>IX Engineers</b> Agent's service: <b>Structural Engineer</b> Postal address: <b>21 The Boulevard</b> <b>Westville</b> <b>3630</b> Tel: <b>031-254 5700</b> Fax: <b>031-265 8498</b>
	<b>Employers Agent 4</b> <b>IX Engineers</b> Agent's service: <b>Civil Engineer</b> Postal address: <b>21 The Boulevard</b> <b>Westville</b> <b>3630</b> Tel: <b>031-254 5700</b> Fax: <b>031-254 8498</b>



Tender no: ZNTD 02753W	
<b>Employers Agent 5</b> <b>Lude Project Management Design</b> Agent's service: <b>Electrical Engineer</b> Postal address: <b>1 Forest Road, Ashley</b> <b>Pinetown</b> <b>3610</b> Tel: insert 031-207 3820 Fax: 031-207 3112	
<b>PART 1: DATA PROVIDED BY THE EMPLOYER</b>	
[1.1.1.13]	<b>Defects Liability Period</b> The defects liability period is: A time measured from the date of the Certificate of Completion. Defects Liability Period is 12 Months for the whole of the Works
<b>Latent Defect Period</b>	
[5.16.3]	The latent defect period is: 5 years after the Final Approval Certificate
<b>Documentation required before Commencement of the Works:</b>	
[5.3.1]	The documentation required before commencement with the Works execution are;
[4.3]	Health and Safety Plan The Contractor shall deliver his Health and Safety Plan of the Works within 14 calendar days after notice from the Employer, prior to the Commencement Date.
[5.6]	Initial Programme The Contractor shall deliver his programme of work within 10 calendar days after notice from the Employer, prior to the Commencement Date.
[6.2]	Guarantee The Contractor shall deliver his chosen Guarantee (security) for this Works within 14 calendar days after notice from the Employer, prior to the Commencement Date.
[8.6]	Insurance The Contractor shall deliver his insurance for the Works within 14 calendar days after notice from the Employer, prior to the Commencement Date.
	Cash flow by contractor The Contractor shall deliver his Cash flow for the Works within 14 calendar days after notice from the Employer, prior to the Commencement Date.
	Priced Bill of Quantity The Contractor shall deliver his Priced Bill of Quantity within 14 calendar days after notice from the Employer, prior to the Commencement Date.
	Programme The Contractor is required to submit his Programme of Works in terms of Clause 5.6.1 and 5.3.1 and the Principal Agent is required to approve this within 7 days in terms of Clause 5.6.3
	Other requirements
[5.3.2]	The time to submit the documentation required before commencement with Works execution is: 14 calendar days

<b>Non-Working days</b>											
[5.8.1]	Non-Working days Special non- working days										
	Sundays All Nationally Recognized Public Holidays and the year end break										
[5.8.1]	First Year end break - commences ends on										
	15-Dec-25 05-Jan-25										
	Second Year end break - commences ends on										
	15-Dec-26 04-Jan-27										
	Third Year end break - commences ends on										
	18-Dec-27 04-Jan-28										
	Fourth Year end break - commences ends on										
	N/A N/A										
<b>Engineer/Principal Agent to consult with Employer</b>											
[3.1.3]	The Engineer shall obtain the specific approval from the Employer before executing any of his functions according to the "Conditions under which Consultants are appointed", or in the event where an employee of the Employer represents the Employer, the relevant General Delegations applicable at the time of executing his/her duties.										
<b>Security</b>											
[6.2.1]	The time to deliver the deed of guarantee is Prior to site hand over in terms of clause 5.3.1 and 5.3.2.										
[6.2.1]	Please see CONTRACT DATA - below to select Guarantee Option										
<b>Commencement Date</b>											
Commencement date means the date of Site Hand over that should not occur prior to the tenderer receiving one fully signed copy of the Offer and Acceptance in terms of the Form of Offer and Acceptance.											
<p>The <b>Agreement comes into effect</b> on the date when; The tenderer <u>receives one fully completed original copy of this document</u>, including the Schedule of Deviations (if any)</p> <p>The <b>agreement</b> ("this document") consists of; 1. Agreement and Conditions of Contract. 2. Form of Offer and Acceptance. 3. Contract Data. 4. Scope of Works. 5. Site Information. 6. Drawings &amp; documents referred to in the 1 to 4 above.</p> <p>(See Form of Offer and Acceptance)</p>											
[5.3.1]	The contractor shall commence executing the Works within 7 calendar days from the Commencement Date.										
[5.4.1]	<b>Possession of the site</b> will be given within 10 calendar days after the <b>contractor</b> has fulfilled the conditions (4.3, 5.6, 6.2, 8.6) and received the notification from the Employer of Site Hand Over where the contractor will receive one <b>fully signed</b> copy of the Form of Offer and Acceptance from the <b>employer</b> .										
[5.6.1]	The Contractor shall deliver his programme of work within 10 calendar days after notice from the Employer, prior to the Commencement Date.										
<b>CONTRACT DETAILS</b>											
[1.1.1.33]	<b>Works</b> description: Refer to document C3 – Scope of Work.										
[1.1.1.30]	<b>Site</b> description: Refer to document C4 – Site Information.										
Specific options that are applicable to a <b>State</b> organ only Where so :											
[6.10.6.2]	<p>1) Interest rate legislation: (a) in respect of interest owed <u>by the employer</u>, the interest rate as determined by the Minister of Justice and Constitutional Development from time to time, in terms of section 1(2) of the Prescribed Rate of Interest Act, 1975 (Act No. 55 of 1975), will apply; and (b) in respect of interest owed <u>to the employer</u>, the interest rate as determined by the Minister of Finance, from time to time, in terms of section 80(1)(b) of the Public Finance Management Act, 1999 (Act No. 1 of 1999), will apply</p> <p>2) Lateral support insurance to be effected by the contractor:</p> <table border="1"> <tr> <td>Yes</td> <td>X</td> <td>No</td> </tr> </table> <p>3) Payment will be made for materials and goods</p> <table border="1"> <tr> <td>Yes</td> <td>X</td> <td>No</td> </tr> </table> <p>4) Dispute resolution by litigation</p> <table border="1"> <tr> <td>Yes</td> <td>No</td> <td>X</td> </tr> </table> <p>5) Extended <b>defects</b> liability period applicable to the following elements:</p> <table border="1"> <tr> <td>Electrical, Mechanical and Civil work</td> </tr> </table>	Yes	X	No	Yes	X	No	Yes	No	X	Electrical, Mechanical and Civil work
Yes	X	No									
Yes	X	No									
Yes	No	X									
Electrical, Mechanical and Civil work											
[8.6.1.1.2]	The Value of material, supplied by the Employer, and not included in the Contract Price, is: <b>R0,00</b>										
[8.6.1.1.3]	The amount to cover Professional Fees, not included in the Contract Price, for repairing damage and loss to be included in the insurance: <b>30% of the Contract Price</b>										
[8.6.1.3]	The limit for indemnity for liable insurance is: <b>Unlimited</b>										
[6.5.1.2.3]	The percentage allowance to cover overhead charges for contractor and subcontractors, is: <b>33,30%</b>										
[1.1.1.14]	<b>Practical Completion Date</b> The Practical Completion date is: <b>A time measured from the Commencement date.</b>										
[5.5.1]	For the <b>works</b> as a whole: The whole of the works shall be completed within:										
[5.13.1]	<p><b>24 Months</b> (which shall be deemed to include all Non – Working Days, Special Non – Working Days and the year-end Builders Annual Industry Holiday Periods).</p> <p><b>To be determined</b></p> <p><b>0.04% of the Contract Price, rounded to the nearest R10</b></p>										



	<b>For the works in sections:</b>	
	<b>The date for practical completion from the commencement date and the penalty per calendar day:</b>	
	Portion 1:	
[5.5.1]	<b>3 Calendar Months</b>	
[5.13.1]	<b>0.04% of the Contract Price, rounded to the nearest R10</b>	
	Portion 2:	
[5.5.1]	<b>N/A</b>	
[5.13.1]	<b>0.04% of the Contract Price, rounded to the nearest R10</b>	
	Portion 3:	
[5.5.1]	<b>N/A</b>	
[5.13.1]	<b>0.04% of the Contract Price, rounded to the nearest R10</b>	
	Portion 4:	
[5.5.1]	<b>N/A</b>	
[5.13.1]	<b>0.04% of the Contract Price, rounded to the nearest R10</b>	
	Portion 5:	
[5.5.1]	<b>N/A</b>	
[5.13.1]	<b>0.04% of the Contract Price, rounded to the nearest R10</b>	
	Portion 6:	
[5.5.1]	<b>N/A</b>	
[5.13.1]	<b>0.04% of the Contract Price, rounded to the nearest R10</b>	
[1.3.2]	<b>The law applicable to this agreement shall be that of the: Republic of South Africa</b>	
[6.10.1.5]	The percentage advance on materials not yet built into the Permanent Works is: <b>80,00%</b>	
[6.10.3]	Percentage retention on amounts due to contractor is: <b>The Percentage retention is nil. The only security required by the Employer will be such as selected by the Contractor on the Form of Offer and Acceptance and Part 2: CONTRACT DATA PROVIDED BY THE CONTRACTOR, point 2 - Documents, of the Contract Data.</b>	
	Maximum retention is: <b>0,00%</b> of the Contract Price	
[6.8.1]	Notwithstanding anything to the contrary contained in the General conditions of Contract and Preliminaries, this contract could only, when the <u>construction period exceeds 6 months and the contract exceeds R1,000,000.00</u> , be subject to a Contract Price Adjustment Factor.	
[6.8.2]	Clause 6.8.2 the last part of the sentence saying "calculated according to the formula and the conditions set out in the Contract Price Adjustment Schedule." must be replaced by "calculated according to the Contract Price Adjustment Provisions (CPAP) Indices Application Manual for use with P0151 indices (Revised 1 January 2013)" as published by Statistics South Africa. The Contract Price Adjustment Provision (CPAP) will be subject to the most recently released indices by Statistic South Africa. Tenderers are advised that with reference to Clause 3.4.6 of the Contract Price Adjustment Provisions (CPAP) Indices Applications Manual, the Head: Public Works will not accept the submission by Tenderers of lists of additional items."	
[6.8.3]		
[6.8.2]	Where this contract is a Lump Sum contract, the contract will only be subject to Contract Price Adjustment Provisions (CPAP)(Revised 1 January 2013) where the contract period equals or exceeds 6 calendar months. The applicable work group shall be WG 180 for domestic buildings or WG 181 for commercial and industrial buildings only.	
[6.8.3]		
[5.14.5]	<b>The following clause must be added to clause 5.14.5:</b>	
	[5.14.5.6] The employers agent shall submit the <b>final account</b> within 3 calendar months to the principal agent.	
[10.5]	The determinations of disputes shall be by ARBITRATION ONLY.	
[10.5.3]	The number of Adjudication Board Members to be appointed is: <b>One</b>	
[10.9.1]	Replace the last part of the clause with the following: "...on the application of either party, by the Chairman, or his nominee of the Association of Arbitrators."	
	<b>Where CPAP is applicable, the contract sum will be adjusted in accordance with the Contract Price Adjustment Provisions (CPAP) as set out in the CPAP Indices Application Manual as published by Statistics South Africa, dated 1 January 2013 and any amendments thereto:</b>	
	1) Glass etc. measured in specialist section Metalwork, will be adjusted in terms of the index for that work group unless specifically stated otherwise in the bills of quantities.	
	2) In case of uninterruptible power supplies, elevators, escalators and hoists, generating sets, motor-alternator sets and intercommunication systems shall be adjusted in accordance with Work Group 170.	
	3) Further to clause 3.4.6 of the CPAP Indices Application Manual, the listing of additional items for exclusion by Tenderer's, will not be permitted.	
	<b>Alternative Indices: Not Applicable</b>	
	Details of changes made to the General Conditions of Contract for construction works (2010) Second Edition	
	<b>Clause</b>	
[1.1]	<b>[1.1.1.5] COMMENCEMENT DATE – means the actual date of Site Hand over that should not occur prior to the Tenderer receiving one fully signed copy of the Offer and Acceptance in terms of the Form of Offer and Acceptance.</b>	
	<b>[5.12.2.2] ABNORMAL CLIMATIC CONDITIONS - means conditions over and above what could reasonably be expected for the specific locality where the Works are being executed and include inter alia excessive rain, heat, cold, wind and any other climatic condition that would not normally be experienced during the season that the Works are executed in that area. The South African Weather Service's (<a href="http://www.weathersa.co.za">http://www.weathersa.co.za</a>) 10 year average climatic conditions statistics would be what could be reasonably expected for the specific locality where the Works are executed.</b>	
	<b>[6.2.1] CONSTRUCTION GUARANTEE – means an on demand guarantee at call obtained by the contractor from an institution approved by the employer in terms of the employer's construction guarantee form as selected in the Offer and Acceptance Form and the contract data.</b>	
	<b>CONSTRUCTION PERIOD – means the period commencing on the commencement date and ending on the date of due completion date. This period will be deemed to commence on actual site hand over date to the contractor and end on the date of practical completion and shall include all annual industrial holiday periods, Sundays and public holidays.</b>	
	<b>CORRUPT PRACTICE – means the offer, giving, receiving, or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution.</b>	
	<b>FINAL ACCOUNT - The document prepared by the principal agent, which reflects the contract value of the works at final approval or termination.</b>	
	<b>FRAUDULENT PRACTICE – means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of any tenderer and includes collusive practise among tenderers (prior to or after the tender submission) designed to establish tender prices at artificial non-competitive levels and to deprive the tenderer of the benefits of free and open competition.</b>	

**INTEREST** – the interest rates applicable on this contract, whether specifically indicated in the relevant clauses or not, will be in terms of the legislation of the Republic of South Africa, and in particular:

- (a) in respect of interest owed by the **employer**, the interest rate as determined by the Minister of Justice and Constitutional Development from time to time, in terms of section 1(2) of the Prescribed Rate of Interest Act, 1975 (Act No. 55 of 1975), will apply; and
- (b) in respect of interest owed to the employer, the interest rate as determined by the Minister of Finance, from time to time, in terms of section 80(1)(b) of the Public Finance Management Act, 1999 (Act No. 1 of 1999), will apply



	<p>[1.1.1.16] <b>ENGINEER/PRINCIPAL AGENT</b> – means the person or entity appointed by the <b>Employer</b> and named in the <b>Contract Data</b> as the <b>Engineer/Principal Agent</b> to act as agent of the <b>Employer</b>. In the event of an <b>Engineer/Principal Agent</b> not being appointed, then all the duties and obligations of an <b>Engineer/Principal Agent</b> as detailed in the <b>Contract</b> shall be fulfilled by a representative of the <b>Employer</b> as named in the <b>Contract Data</b>. (Hereafter referred to as <b>Engineer</b>)</p> <p>[1.1.1.21] <b>GENERAL ITEMS</b> - or preliminaries means items stipulated in the Pricing Data relating to general obligations, site services, facilities and/or items that cover elements of the cost of the work which are not considered as proportional to the quantities of the Permanent Works.</p>
	<p>[4.4.1] Add the following to the clause 4.4.1: "The Contract shall only use subcontractors who are duly registered with the CIDB and who has an ACTIVE status at the time of submitting the tender"</p> <p>[6.2.1] Refer to Offer and Acceptance form for the various options that the contractor may choose from in providing a form of <b>Guarantee</b> under "GUARATEE OPTIONS".</p> <p>[6.10.6.2] Replace "at the prime overdraft rate, as charged by the Contractor's Bank," with "...at the interest rate as determined by the Minister of Justice and Constitutional Development from time to time, in terms of section 1(2) of the Prescribed Rate of Interest Act, 1975 (Act No. 55 of 1975)." Omit "...on all overdue payments from the date on which the same should have been paid..." and replace with "only after 30 calendar days from receiving written notice from the Contractor that the amount is overdue..."</p>
[5.12.3]	<p><b>SPECIAL CONDITIONS OF CONTRACT</b></p> <p>Omit clause 5.12.3 and add the following:</p> <p>"5.12.3. If an extension of time is granted, the Contractor shall be paid such additional time-related General Items, including for special non-working days, if applicable as are appropriate regarding to any other compensation which may already have been granted in respect of the circumstances concerned. The reasons for extension of time that would invoke payment of time related General Items are inter alia;</p> <p>5.12.3.1 Failure to give possession of the site to the contractor.</p> <p>5.12.3.2 Making good physical loss and repairing damage to the works where the contractor is not at risk.</p> <p>5.12.3.3 Contract instructions not occasioned by default by the contractor.</p> <p>5.12.3.4 Failure to issue construction information timeously or the late issue of a contract instruction following a request from the contractor.</p> <p>5.12.3.5 Late acceptance by the principal agent of a design undertaken by a selected subcontractor where the contractor's obligations have been met.</p> <p>5.12.3.6 Suspension or cancellation termination invoked by a nominated or selected n/s subcontractor due to default by the employer or the principal agent.</p> <p>5.12.3.7 Insolvency of a nominated subcontractor.</p> <p>5.12.3.8 A direct contractor.</p> <p>5.12.3.9 Opening up and testing of work and materials and goods where such work is according to in accordance with the contract documents.</p> <p>5.12.3.10 The execution of additional work for which the quantity included in the bills of quantities is not sufficiently accurate.</p> <p>5.12.3.11 Late or failure to supply materials and goods for which the employer is responsible.</p> <p>5.12.3.12 Suspension of the works."</p>
[5.14.5.1]	Omit entire clause 5.14.5.1
[5.16.4]	Add the following new clause "5.16.4. Upon the issue of a Final Approval Certificate, unless otherwise provided in the Contract: <p>5.16.4.1. The performance Guarantee (if any) shall be returned within 14 days to the guarantor in terms of Clause 7."</p>
[6.2.2]	Replace the following "...it shall be deemed that the Contractor has selected a security of ten percent retention of the value of the Works." with "...it shall be deemed that the Contractor has selected a security of a bank or insurance guarantee of 5% of the value of the Works and a payment reduction of 5% of the value certified in the payment certificate excluding value added tax."
[6.2.3]	Add to clause 6.2.3 the following "The Contractor shall provide proof of paid-up premium payments to accompany his payment certificate as proof that his performance guarantee has not expired yet. The Contractor will not receive payment without proof of the validity of their performance
[9.3.2.2]	Omit "without prejudice to the exercise of any lien the Contractor may have acquired over the Employer's property." <p>Duties and functions of the <b>Engineer</b> requiring the specific approval of the <b>Employer</b> BEFORE execution of any part of these duties are as</p> <ol style="list-style-type: none"> <li>Determinations of contractors claims for extension of time (revision of the contract completion date). All claims for extension of time shall be submitted by the <b>Engineer</b>, together with the <b>Engineer's</b> recommendations, to the <b>Employer</b> for determination. Omit "Engineer" in clause 42.2</li> <li>Drawings, instructions or communications of any kind requiring variations of the works and involving EXTRA's shall NOT be given effect by the <b>Contractor</b> UNTIL BOTH the "Official Variation Order" and the "Financial Request for Variation Order and Additional Funds" form, as issued by the Department of Public Works, have been approved and signed by the <b>Employer</b>.</li> <li>Insurance policies to be approved by the <b>Employer</b> within 21 days of the date of the <b>Commencement</b> of the Works.</li> <li>Any notice of disagreement raised by the <b>Contractor</b> or written Dispute Notice given by the <b>Contractor</b> to the <b>Engineer</b> shall be submitted by the <b>Engineer</b>, together with the <b>Engineer's</b> recommendations, to the <b>Employer</b> for determination.</li> <li>The issue of the certificate of practical completion, certificate of completion and the final approval certificate shall be signed and submitted by the <b>Engineer</b>, to the <b>Employer</b> for final approval and signature. The certificates shall not be considered as officially issued until signed by the</li> </ol>
	<p><b>MANAGING PROJECT DURATION</b></p> <ol style="list-style-type: none"> <li>The Contractor shall co-ordinate his programme with all other contractors whose work may precede or be executed simultaneously to his own. The Contractor will be called upon to plan and control the project using the Project Evaluation and Review Technique (PERT) or other approved Critical Path Method (CPM) network analysis of his events and activities and those of the sub-contractors in his employ and must co-ordinate his planning with any other contractor employed on the project. A fortnightly project control report will be expected from the Contractor in writing, evaluating any gains or delays against the critical path and he should allow for all costs involved in planning reviewing and updating the programme to the satisfaction of the Principal Agent against this item.</li> <li>Activity-and total float shall belong to the Employer.</li> <li>The Contractor shall deliver his programme of work within 10 calendar days after notice from the Employer, prior to the Commencement Date. It is a condition of this contract that, the contractor submit to the Engineer/principal agent a detailed CPM Programme which shall be to the approval of the Engineer/principal agent. In this regard tenderers are advised to consult with the Engineer/Principal Agent as to the format and requirements of the programme as no claim whatsoever will entertained should the programme fail to meet the requirements of the Engineer/Principal Agent. Failure to submit the programme within the stipulated time may result in the contractor being held in breach of contract.</li> </ol> <p>The approved programme will form the basis of time management of the project and extension of time will not be guaranteed unless the Contractor has strictly complied with this provision.</p> <p>The programme shall make allowance for rain and the number of rain days allowed within the critical path shall be on the provisions of the clause dealing with inclement weather and claiming for delays in performance in this bill.</p> <p>Allowance for the above must be made under this item as no claims for failing to comply with this precondition will later be entertained.</p>
	<p><b>INCLEMENT WEATHER AND CLAIMS FOR DELAYS IN PERFORMANCE</b></p> <ol style="list-style-type: none"> <li>The Contract Sum includes a monthly allowance of 3 working days inclement weather during which rainfall exceeds 10mm per day for months as indicated in the Scope of Works. These days shall be reflected on the critical path of the Contractor's programme as specified in MANAGING PROJECT DURATION above.</li> <li>Claims for delays in performance due to inclement weather shall be calculated separately for each calendar month and for the project as a whole. Delays or gains to the critical path shall be reflected in all revisions of the programme. An extension of time will only be granted where the following conditions are met: <ol style="list-style-type: none"> <li>The criteria to be used for WORK stoppages shall be for safety hazards or poor quality of work.</li> <li>The Employer's site representative or the Employer's Principal Agent, if the site representative is not available shall be notified when the Contractor stops the work and intends to claim performance delays. The Employer representative shall inspect the situation together with the Contractor and give an immediate decision.</li> </ol> </li> </ol>



	<ol style="list-style-type: none"> <li>1. The stoppage claimed must cause a delay in the Completion Date of work. If the critical activities can proceed and a non-critical activity is delayed due to inclement weather no claims for delay shall be granted.</li> <li>2. No claims for stoppages less than 2(two) hours per day shall be considered.</li> <li>3. Claims granted for more than 2 (two) hours, but less than 10 (ten) hour (lunch included) day, shall be added together and expressed as full days.</li> <li>4. All claims shall be submitted in writing to the Principal Agent within one working day of the actual stoppage.</li> <li>5. The total delay in performance granted to the Contractor expressed in days shall be added to the contractual Completion Date of each section of the Works. The contractual penalty clause shall only come into effect after this newly arrived date.</li> <li>6. Total delays (in hours) will be rounded up or down to the nearest integer for the calculation of Working Days. The total hours (including lunch) per Working Day shall be 10 unless otherwise indicated on the Contractor's programme.</li> <li>7. Where the programmed delays for inclement weather exceed the actual delays incurred the Completion Date(s) will not be adjusted.</li> <li>8. Where the project includes builder's holidays the programmed durations for inclement weather shall be adjusted pro-rate to the actual Working Days.</li> <li>9. The total of all monthly delays due to inclement weather shall be calculated in accordance with the example given below:</li> </ol>																																															
	<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <th rowspan="2">Description</th><th colspan="5">Months</th><th rowspan="2">Total</th></tr> <tr> <th>Sept</th><th>Oct</th><th>Nov</th><th>Dec</th><th>Jan</th></tr> <tr> <td>Programmed Rain days</td><td>Hours</td><td>Hours</td><td>Hours</td><td>Hours</td><td>Hours</td><td>Hours</td></tr> <tr> <td>Actual Rain days</td><td>0</td><td>30</td><td>30</td><td>15</td><td>15</td><td>90</td></tr> <tr> <td>Difference</td><td>16</td><td>22</td><td>35</td><td>15</td><td>18</td><td>106</td></tr> <tr> <td></td><td>-16</td><td>8</td><td>-5</td><td>0</td><td>-3</td><td>-16</td></tr> <tr> <td colspan="6">Estimated Extension of time - in working days</td><td>2</td></tr> </table> <p>8 hrs/day*</p> <p><b>See point 5.2 in the Scope of Works for the specific days the tenderer must allow for in this contract.</b></p>	Description	Months					Total	Sept	Oct	Nov	Dec	Jan	Programmed Rain days	Hours	Hours	Hours	Hours	Hours	Hours	Actual Rain days	0	30	30	15	15	90	Difference	16	22	35	15	18	106		-16	8	-5	0	-3	-16	Estimated Extension of time - in working days						2
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Estimated Extension of time - in working days						2																																										
<b>Tender no:</b>	<b>ZNTD 02753W</b> <b>Part 2: CONTRACT DATA PROVIDED BY THE CONTRACTOR:</b>																																															
	<p><b>POST-TENDER INFORMATION</b></p> <p><b>Note:</b> All information for this section requires consultation with the Contractor. The Engineer/Principal Agent shall not pre-select any of the alternatives available to the Contractor.</p>																																															
<b>1</b>	<b>CONTRACT DETAILS</b>																																															
[1.1.1.9]	Contractor Name: _____																																															
[1.2.1.2]	Postal address: _____																																															
	Tel no _____ Fax no _____																																															
	Tax / VAT Registration No: _____ e-mail _____																																															
	Physical address: _____																																															
[1.1.1.10]	The accepted contract price inclusive of tax is R : _____																																															
	[Amount in words] _____																																															
	Payment Of Preliminaries (Clause 6.7, 6.8, 6.10 and 6.11)																																															
	<p>The preliminaries amounts shall be paid in terms of:</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <td>*Alternative A</td><td>Yes</td></tr> <tr> <td>**Alternative B</td><td>N/A</td></tr> </table> <p>* Assessed by the Engineer/Principal Agent as an amount prorated to the value of the Work duly executed in the same ratio as the Preliminaries bears to the Contract Price excluding VAT, Preliminary amount, Contingencies and any CPAP.</p> <p>** Calculated from the priced Bill of Quantity/Lump Sum document. The Contractor and the Engineer/Principal Agent shall agree on a division of the priced Preliminaries items into: initial establishment charge, monthly charge and final disestablishment charge.</p> <p>If the Contractor and the Engineer/Principal Agent can not agree, within 10 Working Days from the Commencement Date, on such a division then the Engineer/Principal Agent shall make a division of the Preliminaries to be incorporated in the valuations for each monthly payment certificate as follows;</p> <p style="padding-left: 40px;">10% of the General Items/Preliminaries amount shall not be varied</p> <p style="padding-left: 40px;">15% of the General Items/Preliminaries shall only be varied in proportion of the Contract Price to the Contract Sum</p> <p style="padding-left: 40px;">75% of the General Items/Preliminaries shall be varied in proportion to the revised Construction Period compared with the initial Construction Period.</p>	*Alternative A	Yes	**Alternative B	N/A																																											
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**Alternative B	N/A																																															
<b>Alternative A</b>	<p><b>Adjustment of Preliminaries (Clause 6.7, 6.8, 6.10 and 6.11)</b></p> <p>For the adjustment of Preliminaries both the Contract Sum and the Contract Value (including tax) shall exclude the amount of Preliminaries, all Contingency Sum(s) and any provision for Cost Price Adjustment Provisions:-</p> <ul style="list-style-type: none"> <li>- An amount which shall not be varied.</li> <li>- An amount varied in proportion to the contract value as compared to the Contract Sum.</li> <li>- An amount varied in proportion to the Construction Period as compared to the initial Construction Period (excluding revisions to the Construction Period to which the Contractor is not entitled) to adjustment of the Contract Value in terms of the agreement.</li> </ul> <p>The Contractor shall provide a breakdown of charges (including tax) within 15 working days of the date of acceptance of tender and, where applicable, an apportionment of Preliminaries per section</p> <p>If the Contractor and the Principal Agent cannot agree, within ten (10) Working Days from the Commencement Date, on such a division then the Principal Agent shall make a division of the Preliminaries to be incorporated in the valuations for each monthly payment certificate as follows;</p> <p style="padding-left: 40px;">10% of the amount shall not be varied</p> <p style="padding-left: 40px;">15% varied in proportion of the Contract Value to the Contract Sum</p> <p style="padding-left: 40px;">75% varied in proportion to the revised Construction period compared with the initial Construction Period</p> <p><b>Sectional Completion : Subdivision of Preliminaries Costs</b></p> <p>For the adjustment of preliminaries for sections of the work the value of fixed, value, and time related amounts of the preliminaries for each section is required. The contractor is to provide such information within fifteen (15) working days of taking possession of the site, failing which the categorised preliminaries amounts shall be prorated to the value of each section.</p> <p>The above shall apply equally for projects where sectional completion was not contemplated at tender stage but subsequently occurred on an adhoc basis during construction of the works as agreed between the client and the employer. The original priced categorised amounts for fixed, value, and time related amounts shall be prorated to the value of each section.</p> <p>When an extension of time has been granted in terms of the GCC and the preliminaries require to be adjusted accordingly, the pertinent sectional (subdivided) categorised preliminaries amounts shall be utilised, where applicable and not the overall preliminary amounts.</p> <p>Where sectional completion is required in terms of the agreement, the Contractor shall provide the Principal Agent with the division of the above categorized amounts into sections. Should the Contractor fail to provide such information within the period stipulated the categorized amounts shall be prorated to the value of each section.</p>																																															

YES ☐ yes / no



<b>Alternative B</b>	<p>or</p> <p>The Contractor shall within 15 working days of the date of possession of the site provide the Principal Agent with a detailed breakdown of Preliminaries amounts for the works as a whole, or per section where applicable, including administrative and supervisory staff charges and for the use of construction equipment in terms of the programme.</p>	<div style="border: 1px solid black; padding: 2px; display: inline-block;">NO</div> yes / no
<p><b>The contractor is informed that only option 'A' shall apply</b></p>		
<p><b>2 DOCUMENTS</b></p>		
<p>Contract documents marked and annexed hereto:</p> <p>Priced Bills of Quantities: Yes <input type="text"/> No <input type="text"/></p> <p>Lump Sum document : Yes <input type="text"/> No <input type="text"/></p> <p>Guarantee Options: Not applicable</p> <p>2.2 DESIGN BRIEF</p> <p style="margin-left: 40px;">Not applicable <span style="float: right;"><input type="text"/> YES or NO</span></p> <p style="margin-left: 40px;">2.3 DRAWINGS <span style="float: right;"><input type="text"/> YES or NO</span></p> <p style="margin-left: 40px;">See list of drawings/Annexure's attached to this document. <span style="float: right;"><input type="text"/> YES or NO</span></p> <p style="margin-left: 40px;">2.4 DESIGN PROCEDURES <span style="float: right;"><input type="text"/> YES or NO</span></p> <p style="margin-left: 40px;">Not applicable</p> <p>Contract drawings: Yes <input type="text"/> No <input type="text"/></p> <p>Other documents:</p>		
<p>Waiver of the Contractors lien or right of continuing possession is required. <span style="float: right;"><div style="border: 1px solid black; padding: 2px; display: inline-block;">YES</div></span></p>		
<p><b>GUARANTEE OPTIONS</b></p>		
<p>The Tenderer agrees to provide a bank or insurance guarantee in accordance with clause 6.2.3 of the Conditions of the GCC2010 Contract within the period stated in the Contract Data. This guarantee shall be for a sum equal to an amount stated in the Contract Data.</p>		
<p><b>Guarantees submitted must be issued by either an insurance company duly registered in terms of the Insurance Act (Long Term Insurance Act No 52 of 1998 or Short Term Insurance Act No 53 of 1998) or by a bank duly registered in terms of the Banks Act No 94 of 1990, on the pro-forma referred to above. No alterations or amendments of the wording of the pro-forma will be accepted.</b></p>		
<p>(a) the tenderer accepts that in respect of contracts up to R1 million, a payment reduction of 5% of the contract value will be applicable and will be reduced by the Employer in terms of the applicable conditions of contract.</p>		
<p>(b) in respect of contracts above R1 million, the Tenderer offers to provide security as indicated below: select one option</p>		
<p>(i) cash deposit of 10 % of the Contract Price</p>		
<p>(ii) bank or insurance Performance Guarantee of 10 % of the Contract Price</p>		
<p>(iii) cash deposit of 5% of the Contract Price and a payment reduction of 5% of the value certified in the payment certificate (excluding VAT)</p>		
<p>(iv) bank or insurance guarantee of 5% of the Contract Price and a payment reduction of 5% of the value certified in the payment certificate (excluding VAT)</p>		
<p><b>NOTE:</b> Where the Tenderer has not selected one of the guarantee options above, the default option will be as if the Tenderer has selected a security of a bank or insurance guarantee of 5% of the value of the Works and a payment reduction of 5% of the value certified in the payment certificate excluding value added tax. - See GCC2010 clause 6.2.2 as amended in Contract Data.</p>		
<p><b>3 SIGNATURES OF THE CONTRACTING PARTIES</b></p>		
<p>Thus done and signed at.....on .....of.....20....</p>		
<p>Name of signatory</p>	<p>for and behalf of the <b>Employer</b> who by signature hereof</p>	
<p>Capacity of signatory</p>	<p>as Witness.</p>	
<p>Thus done and signed at.....on .....of.....20....</p>		
<p>Name of signatory</p>	<p>for and behalf of the <b>Contractor</b> who by signature hereof</p>	
<p>Capacity of signatory</p>	<p>as Witness.</p>	



**KWAZULU-NATAL PROVINCE**  
**PUBLIC WORKS & INFRASTRUCTURE**  
REPUBLIC OF SOUTH AFRICA

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**NEW 28 BEDDED MALE & FEMALE INPATIENT & OUTPATIENT MENTAL HEALTH UNIT**

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**C1.3 - FORM OF GUARANTEE**



### C1.3 PERFORMANCE GUARANTEE - GCC FOR CONSTRUCTION WORKS (2nd Edition - 2010)

Head: Public Works  
KZN Department of Public Works:  
Private Bag X 9041  
PIETERMARITZBURG  
3200  
Sir,

#### ON DEMAND PERFORMANCE GUARANTEE

**Tender Number ZNTD 02753W**

**Project Code 048152**

For use with the General Conditions of Contract for Construction Works, Second Edition, 2010.

#### GUARANTOR DETAILS AND DEFINITIONS

"Guarantor" means: \_\_\_\_\_

Physical Address: \_\_\_\_\_

"Employer" means: The Provincial Administration of KwaZulu-Natal in its Department of Public Works

"Contractor" means: \_\_\_\_\_

"Engineer" means: \_\_\_\_\_

"Works" means: 

**NEW 28 BEDDED MALE & FEMALE INPATIENT & OUTPATIENT  
MENTAL HEALTH UNIT**

"Site" means: \_\_\_\_\_

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

"Contract Sum" means: The accepted amount inclusive of tax of: \_\_\_\_\_

Amount in Words:

"Guaranteed Sum" means: The maximum aggregate amount of: 10%  

Of Contract Sum

Amount in Words: \_\_\_\_\_

"Expiry Date" means: \_\_\_\_\_

## CONTRACT DETAILS

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

## PERFORMANCE GUARANTEE

- 1 The Guarantor's liability shall be limited to the amount of the Guaranteed Sum.
- 2 The Guarantor's period of liability shall be from and including the date of issue of this Performance Guarantee and up to and including the Expiry Date or the date of issue by the Engineer of the Certificate of Completion of the Works or the date of payment in full of the Guaranteed Sum, whichever occurs first. The Engineer and/or the Employer shall advise the Guarantor in writing of the date on which the Certificate of Completion of the Works has been issued.
- 3 The Guarantor hereby acknowledges that:
  - 3,1 any reference in this Performance Guarantee to the Contract is made for the purpose of convenience and shall not be construed as any intention whatsoever to create an accessory obligation or any intention whatsoever to create a suretyship;
  - 3,2 its obligation under the Performance Guarantee is restricted to the payment of money.
- 4 Subject to the Guarantor's maximum liability referred to in 1, the Guarantor hereby undertakes to pay the Employer the sum certified upon receipt of the documents identified in 4.1 to 4.3:
  - 4,1 A copy of a first written demand issued by the Employer to the Contractor stating that payment of a sum certified by the Engineer in an Interim or Final Payment Certificate has not been made in terms of the Contract and failing such payment within seven (7) calendar days, the Employer intends to call upon the Guarantor to make payment in terms of 4.2;
  - 4,2 A first written demand issued by the Employer to the Guarantor at the Guarantor's physical address with a copy to the Contractor stating that a period of seven (7) days has elapsed since the first written demand in terms of 4.1 and the sum certified has still not been paid;
  - 4,3 A copy of the aforesaid payment certificate which entitles the Employer to receive payment in terms of the Contract of the sum Certified in 4.
- 5 Subject to the Guarantor's maximum liability referred to in 1, the Guarantor undertakes to pay to the Employer the Guaranteed Sum or the full outstanding balance upon receipt of a first written demand from the employer to the Guarantor at the Guarantor's physical address calling up this Performance Guarantee, such demand stating that:
  - 5,1 the Contract has been terminated due to the Contractor's default and that this Performance Guarantee is called up in terms of 5; or
  - 5,2 a provisional or final sequestration or liquidation court order has been granted against the Contractor and that the Performance Guarantee is called up in terms of 5; and
  - 5,3 the aforesaid written demand is accompanied by a copy of the notice of termination and/or the provisional/final sequestration and/or the provisional liquidation court order.
- 6 It is recorded that the aggregate amount of payments required to be made by the Guarantor in terms of 4 and 5 shall not exceed the Guarantor's maximum liability in terms of 1.
- 7 Where the Guarantor has made payments in terms of 5, the Employer shall upon the date of issue of the Final Payment Certificate submit an expense account to the Guarantor showing how all monies received in terms of this Payment Guarantee have been expended and shall refund to the Guarantor any resulting surplus. All monies refunded to the Guarantor in terms of this Performance Guarantee shall bear interest at the prime overdraft rate of the Employer's bank compounded monthly and calculated from the date payment was made by the Guarantor to the Employer until the date of refund.
- 8 Payment by the Guarantor in terms of 4 or 5 shall be made with seven (7) calendar days upon receipt of the first written demand to the Guarantor.
- 9 Payment by the Guarantor in terms of 5 will only be made against the return of the original Performance Guarantee by the Employer.



- 10 The Employer shall have the absolute right to arrange his affairs with the Contractor in any manner which the Employer may deem fit and the Guarantor shall not have the right to claim his release from this Performance Guarantee on account of any conduct alleged to be prejudicial to the Guarantor.
- 11 The Guarantor chooses the physical address as stated above for the service of all notices for all purposes in connection herewith.
- 12 This Performance Guarantee is neither negotiable nor transferable and shall expire in terms of 2, where after no claims will be considered by the Guarantor. The original of this Guarantee shall be returned to the Guarantor after it has expired.
- 13 This Performance Guarantee, with the required demand notices in terms of 4 or 5, shall be regarded as a liquid document for the purposes of obtaining a court order.
- 14 Where this Performance Guarantee is issued in the Republic of South Africa the Guarantor hereby consents in terms of Section 45 of the Magistrate's Court Act No 32 of 1944, as amended, to this jurisdiction of the Magistrate's Court of any district having jurisdiction in terms of Section 28 of the said Act, notwithstanding that the amount of the claim may exceed the jurisdiction of the Magistrate's Court.

Signed at

Date

Guarantor's signatory (1)

Capacity

Guarantor's signatory (2)

Capacity

Witness signatory (1)

Witness signatory (2)



**KWAZULU-NATAL PROVINCE**

**PUBLIC WORKS & INFRASTRUCTURE**  
REPUBLIC OF SOUTH AFRICA

**NEW 28 BEDDED MALE & FEMALE INPATIENT & OUTPATIENT MENTAL HEALTH UNIT**

**PART C2 - PRICING DATA**



**C2.1 PRICING INSTRUCTIONS**  
**GCC FOR CONSTRUCTION WORKS (Second Edition 2010)**

<b>Project title:</b>	<b>NEW 28 BEDDED MALE &amp; FEMALE INPATIENT &amp; OUTPATIENT MENTAL HEALTH UNIT</b>		
<b>Tender no:</b>	<b>ZNTD 02753W</b>	<b>Project Code:</b>	<b>048152</b>

**C2.1 Pricing Instructions**

	<p>Where any item is not relevant to this specific contract, such item is marked N/A (signifying "not applicable")</p> <p>The adjustment of the preliminaries each item priced is to be allocated to one or more of the three categories by insertion of "F", "V", "T" as the case may be against the price in the "rate" column immediately preceding the "amount" column, where "F" denotes a fixed amount (amount not varied), "V" denotes an amount variable in proportion to value and "T" denotes an amount variable in proportion to time.</p>
<b>1</b>	<p><b>MASSSES AND MEASURING UNITS</b></p> <p>These shall be in accordance with the Measuring Units and National Measuring Standards Act No. 76 of 1973 and amendments thereto.</p> <p>The pages of each of these documents are numbered consecutively and before the Tenderer submits his tender he should check the number of pages, and if any are found missing or duplicated, or the figures or writing indistinct, or the documents contain any obvious error, he should apply to the Head : Public Works AT ONCE and have same rectified as no liability whatsoever will be admitted by the Administration in respect of errors in Tender due to the foregoing.</p>
<b>2</b>	<p><b>PRICES FOR VARIATIONS</b></p> <p>Where prices or quotations for variations are submitted by the Contractor during the currency of the Contract, it is to be clearly understood that these are for the purpose of consideration by the Head : Public Works and that there is no assumption of acceptance. The Contractor will be notified of acceptance of prices or quotations either by insertion of the amount on the variation order or by written intimation.</p>
<b>3</b>	<p><b>SCALE</b></p> <p>The scale to which the Drawings are made is only to be made use of when no figured dimensions are given either on the Drawings or in the tender documents and the figured dimensions are always to be followed though they may not coincide with the scale of the Drawings, but dimensions where possible are to be taken from the buildings.</p>
<b>4</b>	<p><b>PROVISIONAL ITEMS</b></p> <p>All items described as "Provisional" shall be used as directed by the Employer and measured and valued or paid for.</p> <p>No work for which "Provisional" items are allowed shall be commenced without written instructions from the Head : Public Works.</p>

5	<p><b>TIMELY ORDERING OF MATERIALS</b></p> <p>The Contractor is warned to place all orders for materials or special articles as early as possible, as he will be held solely responsible for any delay in the delivery of such goods. Nevertheless this tender is conditional upon no liability being attached to the Contractor if delivery of materials is rendered impossible by reason of any act of the Government.</p>
6	<p><b>ELECTRICAL LIGHTING, POWER AND WATER</b></p> <p>The Contractor shall provide any artificial lighting which may be necessary or required for the proper execution of the works, and provide electric power and water required by all Sub-Contractors, Nominated Sub-Contractors and Sub-Contractors appointed directly by the Employer.</p> <p>The Contractor shall give all notices and pay all fees in connection with temporary electrical and water connections and shall connect temporary Electrical and Water meters for and pay for all current and water consumed.</p> <p>Tenderers are advised that the permanent light fittings and water points of any kind installed in the Works are not to be used to provide temporary lighting and supplement water requirements for construction purposes.</p>
7	<p><b>IMPORT PERMITS, DUTIES AND SURCHARGES.</b></p> <p>All tenders by means of which imported products are being called for, must use the rate of exchange 14 days prior to the closing date indicated in the tender documents. If this day falls on a weekend or public holiday, the next working day must be used.</p> <p>Furthermore, Tenderers must submit documentary proof (in the form of a certified copy) from their bank or legally recognised financial institution, clearly indicating what the rate of exchange was 14 days prior to the closing date, as mentioned above.</p> <p>Together with this, the Tenderer must confirm that the tender price relating to an imported product, was based on the rate of exchange 14 days prior to the closing date as mentioned above.</p>
8	<p><b>STANDARD SYSTEM OF MEASUREMENT WHERE BILLS OF QUANTITIES FORM PART OF THE TENDER DOCUMENTS</b></p> <p>The work executed under this Contract has been measured in accordance with the;</p> <p style="text-align: center;"><b>Standard System of Measuring Builders Work (7th Edition)</b></p> <p>including all amendments unless descriptions of items indicate a deviation and it shall be understood that the system of measurement which is herein adopted is the only system of measurement which will be recognised in connection with this contract. Any contradictions to this system of measurement contained in the "Model Preambles for Trades 2008" shall be disregarded (unless same have been accommodated in the system of measurement) but applicable rates shall be included for all requirements stated and not measured separately in compliance with this system.</p>
9	<p><b>PRICING OF ROCK EXCAVATIONS</b></p> <p>It is a condition of this tender that should the tenderer elect to price the Rock Excavation included in this tender, the rates must be market related and should be identically priced for the same classification of excavations and not vary for similar billed items in the different sections.</p>



10	<p><b>BROAD BASED BLACK ECONOMIC EMPOWERMENT</b></p> <ol style="list-style-type: none"> <li>1. It is the deliberate policy of the Provincial Administration of KwaZulu-Natal to foster and to encourage the economic empowerment of Black South Africans. This policy will be implemented without prescription and without prejudicing the principles and the integrity of the Provincial Administration of KwaZulu-Natal. Subject to these constraints and also subject to good business practise and commercial consideration, it is therefore considered appropriate that the Provincial Administration of KwaZulu-Natal should encourage business relationships with companies which actively pursue Affirmative Action and Black Economic Empowerment Programmes.</li> <li>2. In responding to this tender you are therefore encouraged to devote attention to these two subjects of Affirmative Action and Economic Empowerment. In addition, in considering the appointment of sub-contractors, you are requested to extend the spirit of these policies.</li> <li>3. The foregoing enunciations of this policy are not intended to be prescriptive nor to preclude any individual or operation from responding to this tender.</li> </ol>				
11	<p><b>REGISTRATION ON THE CENTRAL SUPPLIERS DATABASE</b></p> <ol style="list-style-type: none"> <li>1. In terms of the Public Finance Management Act (PFMA), 1999 (Act No 1 of 1999) Section 38 (1) (a) (iii) and 51 (1) (iii) and Section 76 (4) of PFMA National Treasury developed a single platform, The Central Supplier Database (CSD) for the registration of prospective suppliers including the varification functionality of key supplier information.</li> <li>2. Prospective suppliers will be able to self - register on the CSD website: <a href="http://www.csd.gov.za">www.csd.gov.za</a></li> <li>3. Once the supplier information has been varified with external data sources by National Treasury a unique supplier number and security code will be allocated and communicated to the supplier. Suppliers will be required to keep their data updated regularly and should confirm at least once a year that their data is still current and updated.</li> <li>4. Suppliers can provide their CSD supplier number and unique security code to organs of state to view their varified CSD information.</li> <li>5. Tenderers are required to fill in clearly, legibly, in bold print and black ink their CSD supplier number in the space hereunder:</li> </ol> <table border="1"> <tr> <td><b>Name of Supplier</b></td><td></td></tr> <tr> <td><b>Central Supplier Database (CSD) Supplier Number:</b></td><td></td></tr> </table>	<b>Name of Supplier</b>		<b>Central Supplier Database (CSD) Supplier Number:</b>	
<b>Name of Supplier</b>					
<b>Central Supplier Database (CSD) Supplier Number:</b>					
12	<p><b>TAX CLEARANCE REQUIREMENTS</b></p> <p><b>It is a condition of tender that the taxes of the successful tenderer must be in order, or that satisfactory arrangements have been made with South African Revenue Service (SARS) to meet the Tenderder's tax obligations. It is a condition of this Offer of Commission that your practice remains in good standing with SARS (South African Revenue Services) in terms of its tax clearance, during the project, which is required to process your payment certificates.</b></p> <ol style="list-style-type: none"> <li>1. In order to meet this requirement tenderers are required to apply via e-filing at any SARS branch office nationally. The Tax Compliance Status (TCS) requirements are also applicable to foreign Tenderders / individuals who wish to submit Tenders.</li> <li>2. SARS will then furnish the Tenderder with a Tax Compliance Status (TCS) PIN that will be valid for a period of 1 (one) year from the date of approval.</li> <li>3. In tenders where Consortia / Joint Ventures / Sub-contractors are involved, each party must submit a separate Tax Compliance Status (TCS) PIN.</li> <li>4. Application for Tax Compliance Status (TCS) PIN can be done via e-filing at any SARS branch office nationally or on the website <a href="http://www.sars.gov.za">www.sars.gov.za</a>.</li> <li>5. Tax Clearance Certificates may be printed via eFiling. In order to use this provision, taxpayers will need to register with SARS as eFilers through the website <a href="http://www.sars.gov.za">www.sars.gov.za</a>.</li> <li>6. Tax Clearance Certificates may be printed via eFiling. In order to use this provision, taxpayers will need to register with SARS as eFilers through the website <a href="http://www.sars.gov.za">www.sars.gov.za</a>.</li> </ol>				

	<b>Security PIN Number</b>	
	<b>Company / Entity Tax Reference Number</b>	
<b>13</b>	<b>DEVELOPMENT OF SKILLS THROUGH INFRASTRUCTURE CONTRACTS</b>	
	<p>The contractor shall achieve in the execution of this contract the Contract Participation Goals (CPG) relating to the engagement of targeted enterprises as established in the CIDB Standard for Indirect Targeting for Enterprise Development through Construction works Contracts Published in Government Gazette No 48491)</p>	
<b>14</b>	<b>BILLS OF QUANTITIES/LUMP SUM DOCUMENT</b>  <p>The Bills of Quantities 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, Standard Preambles to all Trades, Specifications, Drawings and all other relevant documentation.</p>	
<b>15</b>	<b>VALUE ADDED TAX</b>  <p>The tender price must include for Value Added Tax (VAT). All rates, provisional sums, etc. in the Bills of Quantities must however be net (exclusive of VAT) with VAT calculated and added to the Total Value thereof in the Final Summary.</p>	
<b>16</b>	<b>FIXED PRICE CONTRACT</b>  <p>Should the Bills of Quantities/Lump Sum Document be a fixed price contract, the following clause must be inserted in the Pricing Instructions:</p> <p>Tenderders are to take note that the contract price adjustments are not applicable to this contract. Tenderders should therefore make provision in the Contract Sum, schedule of rates, etc. for possible price increases during the contract period, as no claims in this regard shall be entertained.</p>	





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**KWAZULU-NATAL PROVINCE**  
**PUBLIC WORKS & INFRASTRUCTURE**  
REPUBLIC OF SOUTH AFRICA

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**NEW 28 BEDDED MALE & FEMALE INPATIENT & OUTPATIENT MENTAL HEALTH UNIT**

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**C2.2 - Preliminaries for GCC for Construction works - 2nd Edition  
2010**

Item No	Quantity	Rate	Amount
<b><u>SECTION NO.: 1: PRELIMINARIES AND GENERAL</u></b>			
<b><u>BILL NO. 1</u></b>			
<b><u>PRELIMINARIES &amp; GENERAL</u></b>			
<b>NOTES</b>			
The agreement is to be the General Conditions of Contract for Works of Civil Engineering Construction (2010) (Second Edition) , published by the S. A. Institution Of Civil Engineering			
The Preliminaries are to be the Construction and management requirements for works contracts - Part 1: General engineering and construction works (SANS 1921-1: 2004 Edition 1) prepared by Standards South Africa and shall be deemed to be incorporated herein			
Tenderers are referred to the above mentioned documents for the full intent and meaning of each clause thereof (hereinafter referred to by heading and clause number only) for which such allowance must be made as may be considered necessary			
Where standard clauses or alternatives are not entirely applicable to this contract such modifications, corrections or supplements as will apply are given under each relevant clause heading			
<b>Carried to Collection</b>			
Section No. 1			
Bill No. 1			
Preliminaries and general			
<b>Prepared by:</b>			
<b>Cepma Engineering Worx (Pty) Ltd</b>			

Where any item is not relevant to this specific contract such item is marked N/A (signifying "not applicable")

Adjustment of the preliminaries: each item priced, is to be allocated to one or more of the three categories, where "F" denotes a fixed amount (amount not to be varied), "V" denotes an amount variable in proportion to value and "T" denotes an amount in proportion to time

Time (T) related Preliminaries will only be adjusted for omissions or additions, issued by the Employer, or delays caused by the Employer, for which variation and extension of time has been granted. See Contract Data

### **SECTION A: GENERAL CONDITIONS OF CONTRACT**

1 General (clause 1)

F:..... V:..... T:.....

Item

2 Basis of Contract (clause 2)

F:..... V:..... T:.....

Item

3 Engineer (clause 3)

F:..... V:..... T:.....

Item

4 Contractor's General Obligation (clause 4)

F:..... V:..... T:.....

Item

5 Time and Related Matters (clause 5) - As referred to in the Contract Data under Special Condition of Contract. The Contract Period shall be deemed to include all Non – Working Days, Special Non – Working Days and the year-end Builders Annual Industry Holiday Periods

F:..... V:..... T:.....

Item

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R

Section No. 1

Bill No. 1

Preliminaries and general

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6	Payment and Related Matters (clause 6)			
	F:..... V:..... T:.....	Item		
7	Quality and Related Matters (clause 7)			
	F:..... V:..... T:.....	Item		
8	Risk and Related Matters (clause 8)			
	F:..... V:..... T:.....	Item		
9	Termination of Contract (clause 9)			
	F:..... V:..... T:.....	Item		
10	Claims and Disputes (clause 10)			
	F:..... V:..... T:.....	Item		
<b><u>SECTION B: SANS 1921-1:2004 (Edition 1):</u></b> <b><u>CONSTRUCTION AND MANAGEMENT</u></b> <b><u>REQUIREMENTS FOR WORKS CONTRACTS:</u></b> <b><u>PART 1</u></b>				
Refer to the SCOPE OF WORK for detail requirements:				
11	Scope			
	F:..... V:..... T:.....	Item		
12	Normative references			
	F:..... V:..... T:.....	Item		
13	Definitions			
	F:..... V:..... T:.....	Item		
14	Requirements for construction and management			
	F:..... V:..... T:.....	Item		

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Bill No. 1

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-23-

-24-



35	Inspection of adjoining structures, services, buildings and property F:..... V:..... T:.....	Item
36	Attendance on nominated and selected subcontractors F:..... V:..... T:.....	Item
<b><u>SECTION C: SCOPE OF WORK in accordance with SANS 10403</u></b>		
(The reference to Clauses refer to Table B.1 of SANS 1921-1:2004)		
37	Certification by recognised bodies - CLAUSE 4.4 F:..... V:..... T:.....	Item
38	Agreement certificates - CLAUSE 4.5 F:..... V:..... T:.....	Item
39	Other services and facilities - CLAUSE 4.8 F:..... V:..... T:.....	Item
40	Recording of weather - CLAUSE 5.2 F:..... V:..... T:.....	Item
41	Management meetings - CLAUSE 5.3 F:..... V:..... T:.....	Item
42	Daily records CLAUSE 5.6 F:..... V:..... T:.....	Item
43	Bond and guarantees - CLAUSE 5.7 F:..... V:..... T:.....	Item

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Section No. 1

Bill No. 1

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44	Permits - CLAUSE 5.9 F:..... V:..... T:.....	Item
45	Proof of compliance with the law - CLAUSE 5.10 F:..... V:..... T:.....	Item
<b><u>SECTION D: SPECIFICATION DATA</u></b> <b><u>ASSOCIATED WITH SANS 1921-1:2004 (Table A.1)</u></b>		
46	Requirements for drawings, information and calculations for which the contractor is responsible CLAUSE 4.1.7 F:..... V:..... T:.....	Item
47	The responsibility strategy assigned to the contractor for the works CLAUSE 4.2.1 F:..... V:..... T:.....	Item
48	The planning, programme and method statements - CLAUSE 4.3 F:..... V:..... T:.....	Item
49	Samples of materials, workmanship and finishes - CLAUSE 4.12.1 F:..... V:..... T:.....	Item
50	Fabrication drawings that the contractor is to provide and deliver to the employer - CLAUSE 4.12.2 F:..... V:..... T:.....	Item
51	Office for the foreman CLAUSE 4.14.3 F:..... V:..... T:.....	Item
52	Telephone - CLAUSE 4.14.3 F:..... V:..... T:.....	Item

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R

Section No. 1

Bill No. 1

Preliminaries and general

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53	Office for inspector of works - CLAUSE 4.14.3 F:..... V:..... T:.....	Item
54	Telephone in office for inspector of works - CLAUSE 4.14.3 F:..... V:..... T:.....	Item
55	Sheds - CLAUSE 4.14.3 F:..... V:..... T:.....	Item
56	Provision and erection of signboards - CLAUSE 4.14.6 F:..... V:..... T:.....	Item
57	Termination, diversion or maintenance of existing services - CLAUSE 4.17.1 F:..... V:..... T:.....	Item
58	Services which are known to exist - CLAUSE 4.17.3 F:..... V:..... T:.....	Item
59	Detection apparatus - CLAUSE 4.17.4 F:..... V:..... T:.....	Item
60	Additional health and safety requirements - CLAUSE 4.18 F:..... V:..... T:.....	Item

**SECTION E: SPECIFIC PRELIMINARIES**

Section E contains Specific Preliminary items which apply to this contract except where "N/A" (Not Applicable) appears against the item.

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Bill No. 1

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## 61 PROPRIETARY BRANDED PRODUCTS

The contractor shall take delivery of, handle, store, use apply and/or fix all proprietary branded products in strict accordance with the manufacturers' instruction after consultation with the manufacturer's authorised representative

F:..... V:..... T:.....

Item

## 62 OVERTIME

Should overtime be required to be worked for any reason whatsoever, the costs of such overtime are to be borne by the Contractor unless the Engineer/Principal Agent has specifically authorised in writing, prior to the execution thereof, that costs for such overtime are to be borne by the Employer

F:..... V:..... T:.....

Item

## 63 AS BUILT DRAWINGS

The position of construction breaks and the extent of individual concrete pours are to be recorded by the Contractor on the Structural Engineer's drawings and are to be submitted to the Engineer/Principal Agent and the Structural Engineer for their records

F:..... V:..... T:.....

Item

## 64 SITE INSTRUCTIONS

Site Instructions issued on site are to be recorded in triplicate in a Site Instruction book which is to be maintained on site by the Contractor

F:..... V:..... T:.....

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Section No. 1

Bill No. 1

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## 65 LABOUR RECORD

At the end of each week the Contractor shall provide the Engineer/Principal Agent with a written record, in schedule form, reflecting the number and description of tradesmen and labourers employed by him and all sub-contractors on the works each day

F:..... V:..... T:.....

*Note: In the event that the contractor fails to satisfy the requirements of this specification, the Employer (Head: Public Works) may apply any of the sanctions provided in the contract. Sanctions may include the application of a financial penalty of .04% of the Contract Sum per calendar day of which the required report has not been submitted*

Item

## 66 PLANT RECORD

At the end of each week the Contractor shall provide the Engineer/Principal Agent with a written record, in schedule form, reflecting the number, type and capacity of all plant, excluding hand tools, currently used on the works

F:..... V:..... T:.....

Item

## 67 NON CESSION OF MONIES

The Contractor shall not cede nor assign his rights or claims to any monies due or to become due under this contract

F:..... V:..... T:.....

Item

## 68 SECTIONAL COMPLETION

When it is required that the contract be executed in sections or portions, the tenderer shall allow for all costs in this regard as no claim for additional costs will be entertained

F:..... V:..... T:.....

Item

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Section No. 1

Bill No. 1

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## 69 LOCAL LABOUR

It is a general requirement of this contract that persons normally resident in the locality of the works (Local Labour) be given preference for employment on the contract. Provided, however, that should adequate and appropriate Labour not be available within the locality, others may be employed subject to satisfactory proof being provided that every reasonable endeavour has been made to employ Local Labour. The Contractor shall identify the local community leaders with the purpose of negotiating with them regarding the utilization of Local Labour in the construction process. In this regard, the Contractor shall furthermore give preference, wherever possible to the employment of single heads of households, women and youth. The Contractor shall, in general, maximize the involvement of the local community

F:..... V:..... T:.....

Item

## 70 IMPORT PERMITS AND DUTIES

The responsibility for obtaining the necessary import permits shall rest with the successful Tenderer. No foreign exchange will be arranged or provided by the Administration

Tenderers are to allow in their tenders and pay the ordinary levy imposed on imported items in terms of item 196.10 of Part 8 of Schedule No. 1 of the Customs and Excise Act, 1964 with effect from 1 October 1989

F:..... V:..... T:.....

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Section No. 1

Bill No. 1

Preliminaries and general

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71 **CONTRACT PRICE ADJUSTMENT PROVISIONS (CPAP)**

Notwithstanding anything to the contrary contained in the GCC for Construction Works 2010 2nd Edition, this Contract shall only when the Construction Period exceeds 6 months and the Contract sum exceeds R1,000,000,00 be subject to the Contract Price Adjustment Provisions Indices Application Manual for use with P0151 indices (CPAP) (Revised 1 January 2013) as published by Statistics South Africa. Tenderers are advised that with reference to Clause 3.4.6 of the Contract Price Adjustment Provisions (CPAP) Indices Applications Manual, the Head: Public Works **will not accept the submission by Tenderers of lists of additional items**

Where this contract is a Lump Sum contract, the contract will be subject to Contract Price Adjustment Provisions (CPAP) only where the contract period equals or exceeds 6 calendar months. The applicable work group shall be WG 180 for domestic buildings or WG 181 for commercial and industrial buildings

F:..... V:..... T:.....

Item

**EPWP CONDITIONS AND SPECIFICATIONS**  
**12.1 EMPLOYMENT TARGETS**

72 **E12.1 a Employment Targets**

The contractor needs to provide a realistic estimate on the number of jobs that the project has the potential to create throughout the project duration as the project will be implemented using labour intensive construction methods on elements where it is economical and feasible for this construction method

No of jobs to be created = 526 [Contractor to fill in an estimated number]

F:..... V:..... T:.....

Item

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Section No. 1

Bill No. 1

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## 73 E12.1 b Employment requirements

Tenderers are advised that this contract will be subject to the Expanded Public Works Programme (EPWP) aimed at alleviating and reducing unemployment

Tenderers must allow for any costs for the employment of unskilled labour as per the requirements of the EPWP programme;

1. 55% of unskilled labour to be women.
2. 55% of unskilled labour to be youth aged between 18 and 25 years.
3. 2% of unskilled labour to be people living with disabilities.
4. 100% unskilled labour utilised must reside within the boundaries of the Municipality Ward where the contract is executed, with preference to the local community closest or at the walking distance to the contract site. Wherever possible local skilled tradesmen are to be employed on this contract with the view to maximise utilisation of local resources

F:..... V:..... T:.....

Item

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Section No. 1

Bill No. 1

Preliminaries and general

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74 E12.1 c Labour rate and payment intervals

The contractor should ensure that the labour rate paid to unskilled local labour is commensurate to the daily task. When determining the rate, the consideration should be given that EPWP beneficiaries are mostly bread winners in their families as the programme intends alleviating poverty. There should also be consideration that the labour rate promotes creation of expanded number of jobs created and person days of work

Contractors should make endeavours to ensure that labourers, particularly unskilled are remunerated on a fortnight basis and prior notification be made should there be a shortfall on the wages

The labour rate for local unskilled shall also be determined in consideration of the location of the project i.e. for projects implemented in urbanised municipalities will not be the same as that for rural municipalities

F:..... V:..... T:.....

Item

**12.2 LABOUR INTENSIVE CONSTRUCTION METHOD**75 E12.2 a Labour Intensive Construction (LIC) method

On site there must be a person(s) having competency in managing and implementing LIC methods

\* Foreman @ NQF Level 4 the unit standard on Implementing LIC methods on site

\* Site Agent/Managers @ NQF Level 5 the unit standard to Manage Labour Intensive Skills Programmes and both must be CETA accredited

F:..... V:..... T:.....

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Section No. 1

Bill No. 1

Preliminaries and general

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76 E12.2 b Labour Intensive Construction Method

Those parts of the contract to be constructed using Labour Intensive Methods will be marked in the BoQs with the letter LI (indicating Labour Intensive) against every item so designated. Such works will only be constructed using the method so indicated

Reference to be made to Guidelines for the implementation of Labour Intensive Infrastructure projects under EPWP. "Scope of Work in Respect of Work Relating to the Expanded Public Works Programme (EPWP)"

F:..... V:..... T:.....

Item

E12.3 RECORD KEEPING

- 77 12.3.1 Every employer must keep in the project site office the following: minutes of site progress meetings; contractors' monthly site progress reports; accurately recorded attendance register; proof of payment as means to verify authenticity of data in the EPWP Beneficiary form submitted with the payment certificates. Copies of submitted EPWP beneficiary data forms should also be kept in the site office

F:..... V:..... T:.....

Item

- 78 12.3.2 The employer must keep this record for a period of atleast three (3) years after the completion of the project in his/her office as the project site office would have been relocated

This should be safely kept for job creation data verifications and periodical audits on projects conducted by National and Provincial Department of Public Works after one (1) or two (2) quarters of submitting captured EPWP data to the National EPWP co-ordinating Department

F:..... V:..... T:.....

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Section No. 1

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**E12.4 EPWP REPORTING AS PER EPWP DATA FORM**

- 79 At the end of each month as part of the site progress report and to be attached to every contractors' progress payment certificate, the contractor shall provide the principal agent & Public Works with written records as per EPWP data form which will be reflecting beneficiaries full name & surname; ID No and job description of labour employed by main contractor and sub-contractors on site
- At the end of each month, the contractor must submit the following documents to be attached to the progress payment certificate:

1. EPWP monthly data collection form
2. Worker monthly payment upload
3. Worker monthly proof of payment i.e.
  - 3.1. Acknowledgement of receipt of payment; or
  - 3.2. Payslips
  - 3.3. Bank statement highlighting the workers paid
4. Worker monthly training form
5. Monthly attendance register
6. Certified copies of ID's (once-off)
7. ID size photos (once-off)
8. Proof of UIF
9. Proof of COIDA

F:..... V:..... T:.....

Item

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Section No. 1

Bill No. 1

Preliminaries and general

Prepared by:

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**E12.5 EPWP PROMOTION**80 **12.5.1 EPWP signage board**

EPWP Programme at the project level shall always be promoted through the projects signage board that embraces the EPWP logo at the bottom, correct measurement for this signage board will be provided by the project leader during the site handing over meeting. The standard "HELVETICA MEDIUM" letters are to be used. Professional title to be 10mm above line. Line thickness to be 8mm thick. Space between bottom of the line and bottom of the lettering below the line has to be 100mm. Letter sizes are as follows: Helvetica medium 100mm black upper case to be for the project name and owner. Helvetica medium 75mm black upper case only to be used for professional titles. Project name and owner shall be black lettering on white background. Board size as follows: Board to be minimum 2000mm from ground level and to be constructed from reinforced formed chromadek panels minimum 0,6mm thick chromadek. The contractor is responsible for ensuring that the project board remains neatly and safely erected for the full duration including maintenance period after which the project board and post are to be dismantled and handed to the client in a good order

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Item

81 **12.5.2 Branding of labour apparel**

Contractors & sub-contractors' labourers shall be provided with EPWP branded Personal Protective Equipment (PPE), reflective vest with EPWP wording at the back is an ideal and cost effective means of promoting the programme on site. The contractor is then advised to price for both items 17.5.1 and 17.5.2

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Item

**E12.6 COMMUNITY LIAISON OFFICER (CLO)**82 **UTILISATION OF A COMMUNITY LIAISON OFFICER**  
In addition to the requirements of Clause E9, contained in this document, the Contractor shall allow for and pay

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R

Section No. 1

Bill No. 1

Preliminaries and general

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any and all costs necessary for the engagement of the services of a Community Liaison Officer (CLO) for the full duration of this contract

In the interest of providing a sound service to both the community and the Contractor, a CLO may only manage one project at a given time

A CLO will be identified by the local structures of the ward areas and appointed following fair and transparent interviewing process, to be conducted in the presence of local structures and the contractor representative, in order to assist the Contractor in the procurement of any local labour, etc. required for this project. The Contractor is to liaise with the CLO and afford him any assistance needed in ensuring sound working relations with the local community

**Key Responsibilities of the CLO are envisaged to include and not necessary be limited to:**

- Assisting local leadership in conducting skills and resources audit which facilitates sourcing labour from within the ward or targeted areas for employment, as required by contractor
- Assisting in sourcing labour-only domestic sub-contractors and the procurement of materials from local resources, as required by the contractor
- Assisting the contractor by identifying areas of potential conflict and or threats to the project or to stakeholders in the project and recommend appropriate action to the contractor
- Assisting contractor and stakeholders in the project in the resolution of any conflict which may arise
- Establishing and ensuring that sufficient and open communication channels between the contractor and the work force are maintained
- Establish and ensuring that efficient and open communication channels between the contractor and the community are maintained
- Identifying and reporting to the Contractor regarding issues where communication between stakeholder is necessary, recommend courses of action and facilitate such communications
- Assisting the Contractor and the work force in the

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Section No. 1

Bill No. 1

Preliminaries and general

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DESCRIPTION: New 28 Bedded Male & Female  
Inpatient & Outpatient Mental Health Unit

establishment of grievance procedures and necessary recommendation to the Contractor regarding the grievances and solution thereto

- Attending to site meetings and project implementation meetings as required by the Contractor and prepare periodic reports as may be required by the Contractor from time to time
- Attending to such other duties which are consistent with the functions of a CLO, as may be required by the Contractor from time to time

Tenderers are to price twice the rate of unskilled local labour rate against this item for any and all costs arising out of compliance with the foregoing and in the event of a Tenderer failing to price against this item or making inadequate financial provision against this item for compliance as aforesaid, then no claim for costs or additional cost incurred will be entertained by the Head: Works

F:..... V:..... T:.....

Item

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R

Section No. 1

Bill No. 1

Preliminaries and general

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**E12.7 SKILLS DEVELOPMENT ON SITE**

- 83 Contractor in conforming to the objective of EPWP that its beneficiaries need to be capacitated with skills that will render them employable in the future. It is then the responsibility of the Contractor that mandatory life skills are provided to 100% of workforce on site and on the job training to labourers from whom the potential for further development has been identified. The latter is not mandatory to all as it covers technical skills

Contractor should also make provision for the possibility that there might be local youth that will need to be placed on the project with an intention to be provided support towards improving their level of competency and productivity

Contractor shall also provide all necessary on-the-job training to targeted labour to enable such labour to master and advance on techniques required to undertake the work in accordance with requirements of the contract in a manner that does not compromise workers health and safety

F:..... V:..... T:.....

Item

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R

Section No. 1

Bill No. 1

Preliminaries and general

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**E12.8 LABOUR ONLY SUB-CONTRACTING FOR  
LOCAL EMERGING ENTERPRISES**

- 84 Tenderer's are advised that this contract is subject to the Expanded Public Works Programme (EPWP) and the following criteria will apply:

**African Equity Ownership**

- a) The Tenderer is to allow for 5% of the total value of works to be undertaken by a Priority Population Group. This percentage excludes the costs of employing local unskilled labour. The allocation of this percentage from the Project, the screening of people, the selection of skills, will be for the Contractor to adjudicate
- b) The Priority Population Group consists of women, youth and disabled people
- c) The Contractor is to give first option for prospective PPG's from the surrounding areas of the Project. Should there be insufficient suitable people fitting the criteria of PPG's, the Contractor may hire people from further afield This is to be done only after consultation with the Department of Works EPWP Co-ordinator and the Community Liaison Officer (CLO)
- d) A Mentor is to be employed by the Contractor, in consultation with the Department of Works for the purposes of quality control and liaison between the Contractor and the selected PPG's on site. The mentor will be responsible for ensuring an acceptable level of quality workmanship and that such work carried out by the PPG's is executed within the time frames stipulated

In so far as possible, the Contractor is encouraged to expand the PPG's skills, knowledge and performance levels

F:..... V:..... T:.....

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R

Section No. 1

Bill No. 1

Preliminaries and general

Prepared by:

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85

**TENDERER'S TO NOTE CONDITIONS**

- The contract to be entered into between the Contractor and the PPG's will be a LABOUR ONLY sub-contract
- The Contractor will be responsible for ensuring that all materials for use by the PPG's in the works are to be on site timeously. The Contractor shall liaise with The Mentor and PPG to determine the nature and extent of materials required and the lead time necessary
- The Contractor shall be responsible for the overall programming of the Works and he is to allow for monitoring the PPG's programme and progress.
- In conjunction with the Mentor, he is to allow for the supervision and mentoring (where necessary) of the PPG to ensure quality and adherence to standard building practice
- The Contractor is to allow for extra storage facilities on site for the PPG's tools and equipment
- Basic tools shall be provided by the PPG's and where these are not available; the Contractor will supply him with the necessary tools and equipment and deduct the costs thereof from the interim claims made by the PPG
- Work requiring specialized tools will be provided free of charge by the Contractor with the provision that these be returned upon completion of the Work

**CO-ORDINATION**

The Contractor is to co-ordinate the work of all the PPG's, Sub-Contractors and Nominated Sub-Contractors appointed direct by the Employer in such a manner and at all times as will suit the building programme and he is to allow adequate access, for the PPG's, where required, to carry out their work in an efficient manner as no claims for extras in this connection will be entertained

F:..... V:..... T:.....

Item

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Section No. 1

Bill No. 1

Preliminaries and general

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86 ATTENDANCE

The Contractor may allow for attendance upon the PPG's concerned to execute the work. The Contractor is to allow the PPG's the use of any scaffolding belonging to him while it remains so erected on the site

Where scaffolding is necessary for the use by any PPG and the Contractor has not erected any for his own use or has removed same after his own use, the Contractor shall supply sufficient scaffolding to the PPG to be erected and dismantled by the PPG and returned to the Contractor

This attendance upon PPG's to execute the work is to include for the scaffolding provisions as aforesaid and, in addition, is to include for co-operating to the fullest extent with all the parties, attending on off-loading materials, providing suitable storage for tools and materials used by the PPG's, use of general facilities such as latrines, etc., supply and cost of power, lighting, water and the like

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Item

E12.9 EPWP CONTRACT FOR LABOUR

- 87 It is compulsory that shortly after the contractor and or sub contractor has appointed local labour, the employment contract should be signed by both parties, prior to commencement with works on site. The employment contract forms part of the Ministerial Determination or from the regional EPWP officials. Each contract will lapse at the end of each financial year therefore requiring the Contractor to do a renewal of each contract should the need of employment still exist for that particular labourer

F:..... V:..... T:.....

Item

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R

Section No. 1

Bill No. 1

Preliminaries and general

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**E12.10 EPWP SCOPE OF WORK**

88

**Note:**

Contractors are to price any item on the Bill of Quantities having below, bearing in mind that they are regarded as main sources of job creation, whether sub contracted or undertaken by the main contractor

Elements on the scope of work where application of Labour Intensive Construction methods will be indicated with letters (LI) and regarded feasible are as follows:

1. Excavating trenches for foundations and any other civil works with the depth not more than 1.5m
2. All masonry works which include concrete mixing on site; brickwork; plastering; screed works; jointing; etc.
3. Painting, Plumbing, Ironmongery; roof cladding; glazing; tiling; carpentry; flooring; waterproofing; etc.

F:..... V:..... T:.....

Item

89

**Note:**

It is a general requirement of this contract that persons normally resident in the ward of the works (local labour) be given preference for employment on the contract. Provided, however, that should adequate and appropriate labour not be available within the ward, others may be employed subject to satisfactory proof being provided that every reasonable endeavour has been made to employ local labour (Local Sub-contractor(s); Skilled; Semi-Skilled and Unskilled). The contractor shall in consultation with the local community leaders with the purpose of negotiating with them regarding the utilization of local resources in the construction process. In this regard, the contractor shall furthermore give preference, wherever possible to the employment of single heads of households, women and youth as well as families declared as most indigent by War on Poverty/ Sukuma Sakhe program profiling process. The contractor should aim, in general, to maximise the involvement of the local community, however workers from other communities should not

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R

Section No. 1

Bill No. 1

Preliminaries and general

**Prepared by:**

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exceed 20% of all persons working on the project, where local employees possess skills at level of competency that meet contractors requirements

Payment for the labour-intensive component of the works:

Payment for works identified in the Scope of Work as being labour-intensive shall only be made in accordance with the provisions of the Contract if the works are constructed strictly in accordance with the provisions of the Scope of Work. Any non-payment for such works shall not relieve the Contractor in any way from his obligations either in contract or in delicti

Linkage of payment for labour-intensive component of works to submission of project data:

The Contractor's payment invoices shall be accompanied by labour information for the corresponding period in a format specified by the employer. If the contractor chooses to delay submitting payment invoices, labour returns shall still be submitted as per frequency and time frame stipulated by the Employer. The contractor's invoices shall not be paid until all pending labour information has been submitted

Applicable labour laws:

The current Ministerial Determination (also downloadable at [www.epwp.gov.za](http://www.epwp.gov.za)) Expanded Public Works programmes, issued in terms of the Basic Conditions of Employment Act of 1997 by the Minister of Labour in Government Notice, shall apply to works described in the scope of work as being labour-intensive and which are undertaken by unskilled or semi-skilled workers

F:..... V:..... T:.....

Item

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R

Section No. 1

Bill No. 1

Preliminaries and general

Prepared by:

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**HIV/AIDS AWARENESS**

Tenderers are to price against the following items for compliance with the SPECIFICATION FOR HIV/AIDS AWARENESS bound into this document (The clauses referred to are those of the Specification for HIV/AIDS)

- 90 Provide and maintain a condom dispenser in terms of Clause 5.1(a)

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Item

- 91 Provide and maintain HIV/AIDS awareness posters terms of Clause 5.1(b)

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Item

- 92 HIV /Aids Awareness Programme on Site for not less than 90% of workers inclusive of all direct and indirect costs; engage a qualified service provider as described in the scope of works to conduct an HIV Awareness Programme in terms of Clause 5.2.1(a)

F:..... V:..... T:.....

Item

- 93 Arrange for workers to attend the HIV Awareness Programme in terms of Clause 5.2.1(b)

F:..... V:..... T:.....

Item

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R

Section No. 1

Bill No. 1

Preliminaries and general

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94 **Reporting**

Prepare and attach to claims for payment a brief report in terms of Clause 5.3 (see also HIV/STI Compliance Report included with this document)

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*Note: In the event that the contractor fails to satisfy the requirements of this specification, the employer (Head: Public Works) may apply any of the sanctions provided for in the contract. Sanctions may include the application of a financial penalty of .04% of the Contract Sum per calendar day of which the required reports has not been submitted*

**OCCUPATIONAL HEALTH AND SAFETY ACT  
NO. 85 OF 1993**

- 95 Tenderers are to allow for costs in providing a project specific 'Construction Phase Safety, Health and Environmental Plan' in accordance with "Section 2 - Specification Data associated with SANS 1921-1:2004" clause C4.18 in "Part C3 - Scope of Work"

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**NOTICE BOARD, SITE OFFICE, ETC.**

- 96 Bidders are to allow for the provision and removal of a project notice board and a site office in accordance with the Principal Agent's requirements

F:..... V:..... T:.....

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Section No. 1

Bill No. 1

Preliminaries and general

Prepared by:

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Item

Item

Item

R

**IMPORTED MATERIALS AND EQUIPMENT**

- 97 Where imported items are listed in the tender documents, the tenderer shall provide all information called for, failing which the price of any such item, material or equipment shall be excluded from currency fluctuations. (*Refer to T2.14 - Schedule of Imported Materials and Equipment.*)

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Item

**CONTRACT DOCUMENTS**

- 98 The drawings issued with these Bid documents do not comprise the complete set but serve as a guide only for Bidding purposes and for indicating the scope of works to enable the Bidder to acquaint him with the nature and extent of the works and the manner in which they are to be executed

Should any part of the drawings not be clearly legible to the Bidder he shall, before submitting his Bid, obtain clarification in writing from the principal agent

F:..... V:..... T:.....

Item

**GENERAL PREAMBLES**

- 99 The Document Preambles will be the "ASAQS Model Preambles for Trades – 2008" and is obtainable from the various Regional Office's of the Department of Public Works and shall be read in conjunction with the Bills of Quantities and be referred to for the full descriptions of work to be done and materials to be used

F:..... V:..... T:.....

Item

Carried to Collection

R

Section No. 1

Bill No. 1

Preliminaries and general

Prepared by:

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**TRADE NAMES**

- 100 Wherever a Trade Name for any product has been described in the Bills of Quantities the Bidder'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 Bids

F:..... V:..... T:.....

Item

**EXISTING PREMISES OCCUPIED**

- 101 Refer to Scope of Works Part C3 of this Bid Document for information on the occupation of existing buildings

F:..... V:..... T:.....

Item

**INACCURATE AND DEFECTIVE WORK  
EXECUTED UNDER PREVIOUS CONTRACT**

- 102 The contractor shall, after taking possession of the site and before commencing the work, check all levels, liners, profiles and the like and satisfy himself as to the dimensional accuracy of all work executed under the previous contract which may affect his work

Should any inaccurate or defective work be found, the contractor shall immediately notify the principal agent in writing requesting his instructions with regard thereto and afford every facility to those rectifying such inaccurate or defective work

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Item

**VIEWING THE SITE IN SECURITY AREAS**

- 103 If the site is situated in a security area the Bidder must arrange with the Authorities to obtain permission to enter the site for Bidding purposes

F:..... V:..... T:.....

Item

Carried to Collection

R

Section No. 1

Bill No. 1

Preliminaries and general

Prepared by:

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**COMMENCEMENT OF WORKS IN SECURITY AREAS**

- 104 If the works fall within a security area, the contractor must arrange with the Authorities and give the necessary notices 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

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Item

**ENTRANCE PERMITS TO SECURITY AREAS**

- 105 If the works fall 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 control of the Authority

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Item

**SECURITY CHECK OF PERSONNEL**

- 106 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 relating to the works

F:..... V:..... T:.....

Item

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R

Section No. 1

Bill No. 1

Preliminaries and general

Prepared by:

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FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

**PROHIBITION ON TAKING PHOTOGRAPHS**

- 107 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 photographs, except when authorised 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

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Item

**MANAGEMENT OF WATER**

- 108 Water for Construction purposes must be obtained from alternative water sources (i.e. supply other than water that is produced and distributed by a regulated water service authority from a licensed water treatment works for human consumption), e.g. dams, rivers, boreholes, springs, rainwater harvesting, recycled sewerage water, etc. The alternative water source shall not be of an inferior quality / standard than that required for construction purposes. The client reserves the right through his agents to test such supplies or request certificates confirming the grade and nature of the water supply. Relevant knowledge of the respective area will be an advantage

F:..... V:..... T:.....

Item

**CIDB BUILD PROGRAMME MANDATORY PROVISIONS**

- 109 Provide the sum of R 1 700 000.00 (One Million Seven Hundred Thousand Rand Only) as allowance for the provisions of the CIDB Build Programme Contract Participation Goal (CPG) as per regulation. Actual participation calculations to be confirmed once the project has been awarded and in implementation

Item

1,700,000.00

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R

Section No. 1

Bill No. 1

Preliminaries and general

Prepared by:

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FACILITY: General Justice Gizenga Mpanza Regional Hospital  
DESCRIPTION: New 28 Bedded Male & Female  
Inpatient & Outpatient Mental Health Unit

**SUMMARY OF CATEGORIES**

Category: Fixed \_\_\_\_\_

Category: Value \_\_\_\_\_

Category: Time \_\_\_\_\_

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R

Section No. 1  
Bill No. 1  
Preliminaries and general  
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DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

Section No. 1

Bill No. 1

Preliminaries and general

**COLLECTION**

Total Brought Forward from Page No.

Page  
No

Amount

20

21

22

23

24

25

26

27

28

29

30

31

32

33

34

35

36

37

Carried Forward

R

Section No. 1

Bill No. 1

Preliminaries and general

Prepared by:

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-53-



**KWAZULU-NATAL PROVINCE**

**PUBLIC WORKS & INFRASTRUCTURE**  
REPUBLIC OF SOUTH AFRICA

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**NEW 28 BEDDED MALE & FEMALE INPATIENT & OUTPATIENT MENTAL HEALTH UNIT**

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**PART C2.3 Bills of Quantities - Section No. 2:**  
**BUILDER'S WORKS**



Item No		Quantity	Rate	Amount
	<b><u>SECTION NO.2: BUILDER'S WORK</u></b>			
	<b><u>BILL NO. 1</u></b>			
	<b><u>EARTHWORKS (PROVISIONAL)</u></b>			
	<u>Descriptions and preambles:</u>			
	1. For preambles see "Standard Preambles to all Trades Rev 3 - DoH 2009"			
	2. Contractor is referred to Trades to follow hereafter for preambles and full descriptions of materials and items not fully described in this Trade and which shall apply equally to work in this Trade, unless otherwise described			
	<u>Trade Names and Proprietary Products:</u>			
	1. All descriptions or clauses where trade names or proprietary products are specified, are deemed to include the phrase "or other approved"			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	<u>Reference to drawings and project specification documentation:</u>			
	1. Contractors to make reference to drawings and project specification documentation that forms part of these Bills of Quantities for all installations and procedures required for the installation or execution of these works			
	<b>Carried to Collection</b>		R	
	Section No. 2			
	Bill No. 1			
	Earthworks (Provisional)			
	Prepared by:			
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FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

Material samples:

1. Before commencement of any work, the contractor will be required to timeously supply a sample of the material to be used to the Principal Agent for approval at no cost
2. Material installed without prior approval from the Principal Agent will be removed at the contractor's cost

Materials removed:

1. All material removed from demolitions is to remain the property of the employer unless otherwise permission has been granted

General:

1. All details and dimensions shown on the drawings are subject to confirmation on site and during construction. All dimensions and levels are to be confirmed on site before commencement of the works
2. All levels on structural drawings refer to the top of concrete, steel, etc. unless otherwise indicated
3. All foundations, footings and columns are symmetrical with respect to gridlines, unless otherwise indicated
4. Dimensions of beams are given as Width x Depth (Depth of beam includes slab thickness where applicable)
5. All details and dimensions pertaining to any existing structures or earthwork platforms are to be confirmed by the Contractor. The design Engineer is to be informed immediately of any unexpected aspects pertaining to these
6. The Contractor is to comply at all times with all the relevant municipal regulations, conditions of

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R

Section No. 2

Bill No. 1

Earthworks (Provisional)

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approval and bylaws in the area of the site and is to ensure that a set of approved building plans is on site at all times

7. All specification documentation, drawings, etc. shall be available on site at all times
8. The Contractor shall at all times be fully responsible for quality control on site ensuring strict compliance with all drawings, details and specifications issued by the relevant design consultant. The Contractor shall submit a quality control plan for each portion of work prior to the commencement for acceptance. The works shall only commence on acceptance of the quality plan by the relevant design consultant
9. All products specified for use are to be used in strict accordance with the manufacturer's specifications and where applicable by an approved manufacturer's applicator or installer
10. Products different to those specified in the specification documentation shall only be used with prior approval of the relevant design consultant

Shop drawings:

1. Shop drawings are to be provided for all elements that are to be fabricated by the contractor's fabricator or supplier
2. All shop drawings are to be submitted to the relevant design consultant or Principal Agent for approval prior to the commencement of fabrication
3. Any fabricated elements installed without prior approval by the relevant design consultant or Principal Agent will be removed at the contractor's cost

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Section No. 2

Bill No. 1

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FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male & Female  
Inpatient & Outpatient Mental Health UnitEarthworks:

1. For bulk earthworks, cut and fill specifications and procedures (inclusive of earthwork platforms), refer to the Civil design Engineer's drawings and specifications
2. All required soil testing shall be done according to the Civil Engineer's specifications and shall be approved by the Civil design Engineer

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Section No. 2

Bill No. 1

Earthworks (Provisional)

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**FACILITY: General Justice Gizenga Mpanza Regional Hospital**  
**DESCRIPTION: New 28 Bedded Male & Female**  
**Inpatient & Outpatient Mental Health Unit**

Backfilling:

1. No backfilling behind retaining walls shall be done before written approval is given by the Structural Engineer
2. Where applicable, backfilling shall be done simultaneously on both sides of walls and columns to minimise the relative height difference in soil levels
3. All backfilling behind retaining walls, under stairs, ground slabs and in trenches shall be G5 material compacted in 100mm layers to 88% MoD.AASHTO density or sand to 100% MoD.AASHTO unless otherwise specified by the Civil Engineer
4. All material used for backfilling or fill shall be tested by the Contractor and submitted to the Civil Engineer for approval
5. The Contractor shall provide a minimum of 3 (three) density test per area less than 150m<sup>2</sup>. For areas larger than 150m<sup>2</sup>, one density test shall be provided for every 50m<sup>2</sup>
6. Density test shall be done for atleast every 900mm depth of backfilling
7. Soilcrete (where specified) shall consist of a soil or gravel mix approved by the Civil Engineer with 5% by volume of Cem-1. The aggregate used for soilcrete shall preferably be a sandy material but may contain larger particles upto 38mm in size and shall have a plasticity index of less than 10. The aggregate shall be obtained from an approved source
8. Soilcrete with 5% cement content by volume shall be cast in confined backfilling spaced where the widths are less than 600mm

Foundations:

1. The design Engineer shall be notified in good time

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**R**

Section No. 2

Bill No. 1

Earthworks (Provisional)

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(minimum 48 hours) to inspect all foundations prior to casting of foundations or blinding layer

2. All foundations to be built on firm in-situ material or engineered fill, unless indicated otherwise on foundation drawings, Engineer to approve founding conditions prior to casting of foundations. DCP test required per foundation/strip footing = 2 off per footing
3. All foundation excavations to be below any signs of organic material or roots, etc.
4. The top level of all foundations to be atleast 300mm below final outside ground level of 300mm below inside finished floor level whichever is the lower unless indicated otherwise
5. All final foundation sizes, depths and details are subject to confirmation on site by the Design Engineer
6. The Contractor is responsible for ensuring safety of all deep excavations and for erecting a fence and or hoarding around the site to prevent entry after working hours and for general safety of the site at all times
7. A 50mm thick blinding layer of 15Mpa/19mm concrete shall be cast under all foundations unless otherwise stated. No blinding layer is required below strip footings
8. Where a new building is to be constructed on an area where demolition of an existing building was necessary, all existing foundations, foundation brickwork and or any building remains should be completely removed before new foundations construction commences
9. No subsoil services (water, sewer, stormwater, etc.) are to be located below an angle of 45 degrees of the edge of any reinforced foundation. All services within the 45 degree angle to be encased in concrete to the top of the 45 degree angle

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Section No. 2

Bill No. 1

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Samples:

1. A sample of any approved product must be delivered to site for sign off by the relevant design consultant or Principal Agent prior to commencement of the installation

**EXCAVATION, FILLING, ETC. OTHER THAN BULK****Soft excavation:**Excavation in earth not exceeding 2m deep:

1	To reduce levels to final levels under floors, etc. (LI)	m3	209
2	For trenches (LI)	m3	2,555
3	For bases, holes, etc. (LI)	m3	1,229
4	For basements (LI)	m3	216

Excavation in earth exceeding 2m and not exceeding 4m deep:

5	For trenches	m3	571
6	For bases, holes, etc.	m3	446
7	For basements	m3	136

**Extra over trench and base excavations in soft material for:**

8	Intermediate material	m3	530
9	Hard rock material	m3	2,576
10	Class A boulder material	m3	253
11	Class B boulder material	m3	118

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R

Section No. 2

Bill No. 1

Earthworks (Provisional)

Prepared by:

Cepma Engineering Worx (Pty) Ltd

**Excavation sundries:**

12	Risk of collapse to sides of trenches, bases, pits, etc. not exceeding 1.50m deep	m2	3,669
13	Risk of collapse to sides of trenches, bases, pits, etc. exceeding 1.50m and n.e. 3.0m deep	m2	2,335
14	Risk of collapse to sides of trenches, bases, pits, etc. exceeding 3.00m and n.e. 4.5m deep	m2	225

**Excavate back from the vertical face of excavation the extent required for the insertion and removal of formwork and afterwards return, fill in and compact crusher run to 93% MOD AASTHO density:**

15	Excavate back for working space exceeding 500mm and not exceeding 1500mm deep and 300mm between the structure and the side to be excavated	m2	1,429
16	Excavate back for working space exceeding 500mm and exceeding 1500mm and not exceeding 3000mm deep and 300mm between the structure and the side to be excavated	m2	998
17	Excavate back for working space exceeding 500mm and exceeding 3000mm and not exceeding 4500mm deep and 300mm between the structure and the side to be excavated	m2	21

**Keeping excavations free of water:**

18	Keeping excavations free of water other than subterranean water	Item	
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**Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 95% Mod AASHTO density:**

19	Backfilling to trenches, bases and around foundation walls stabilised with 5% cement volume (LI)	m3	1,238
20	Backfilling to trenches, bases and around foundation walls (LI)	m3	1,479

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R

Section No. 2

Bill No. 1

Earthworks (Provisional)

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	<u>G5 fill supplied by the contractor compacted in layers not exceeding 150mm to 93% ModASSHTO:</u>				
21	Under floors, steps, pavings, etc. (LI)	m3	123		
	<u>G7 fill material supplied by the contractor stabilised with 5% cement compacted in layers not exceeding 150mm to 93% ModAASHTO:</u>				
22	Behind walls (LI)	m3	1,168		
	<u>G7 fill material supplied by the contractor and compacted in layers not exceeding 150mm to 93% ModAASHTO:</u>				
23	Under floors, steps, pavings, etc. (LI)	m3	93		
	<u>Clean sand drainage layer:</u>				
24	Sand drainage layer to back of walls (LI)	m3	410		
	<u>Earth filling supplied by the contractor, spread and levelled in layers not exceeding 150mm deep and compacted to 93% Mod .AASHTO:</u>				
25	Coarse river sand filling under floors, etc. (LI)	m3	23		
	<u>5% Cement stabilised river sand supplied by the contractor, spread and levelled in layers not exceeding 150mm deep and compacted to 98% Mod .AASHTO:</u>				
26	Under footings, etc. (LI)	m3	55		
	<u>Compaction of surfaces:</u>				
27	Scarify to a depth of 150mm, level and compact earth under solid floors, etc. to 93% Mod AASHTO density	m2	701		
28	Scarify to a depth of 150mm, level and compact earth under foundations, etc. to 93% Mod AASHTO density	m2	1,765		
Carried to Collection				R	
Section No. 2					
Bill No. 1					
Earthworks (Provisional)					
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**Extra over all excavations for carting away:**

29	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	2,685
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**PROTECTION AGAINST TERMITES**

**Apply an approved soil insecticide in strict accordance with manufacturers instructions and SABS 1164-1165 (A five year warranty on the application is required):**

30	Under floors, pavings, etc. including forming and poisoning shallow furrows against foundation walls etc., filling in furrows and ramming	m2	701
31	Bottom & sides of bases	m2	2,977
32	Bottom and sides of trenches	m2	5,030

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R

Section No. 2

Bill No. 1

Earthworks (Provisional)

Prepared by:

Cepma Engineering Worx (Pty) Ltd

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

Section No. 2

Bill No. 1

Earthworks (Provisional)

**COLLECTION**

Total Brought Forward from Page No.

Page  
No

Amount

54

55

56

57

58

59

60

61

62

63

Carried Forward to Summary of Section No. 2

R

Section No. 2

Bill No. 1

Earthworks (Provisional)

Prepared by:

Cepma Engineering Worx (Pty) Ltd

Item No		Quantity	Rate	Amount
	<b><u>BILL NO. 2</u></b>			
	<b><u>CONCRETE, FORMWORK &amp; REINFORCEMENT</u></b>			
	<u>Descriptions and preambles:</u>			
	1. For preambles see "Standard Preambles to all Trades Rev 3 - DoH 2009"			
	2. Contractor is referred to Trades to follow hereafter for preambles and full descriptions of materials and items not fully described in this Trade and which shall apply equally to work in this Trade, unless otherwise described			
	<u>Trade Names and Proprietary Products:</u>			
	1. All descriptions or clauses where trade names or proprietary products are specified, are deemed to include the phrase "or other approved"			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	<u>Reference to drawings and project specification documentation:</u>			
	1. Contractors to make reference to drawings and project specification documentation that forms part of these Bills of Quantities for all installations and procedures required for the installation or execution of these works			
	<b>Carried to Collection</b>		R	
	Section No. 2			
	Bill No. 2			
	Concrete, formwork & reinforcement			
	Prepared by:			
	Cepma Engineering Worx (Pty) Ltd			



FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

Material samples:

1. Before commencement of any work, the contractor will be required to timeously supply a sample of the material to be used to the Principal Agent for approval at no cost
2. Material installed without prior approval from the Principal Agent will be removed at the contractor's cost

Materials removed:

1. All material removed from demolitions is to remain the property of the employer unless otherwise permission has been granted

General:

1. All details and dimensions shown on the drawings are subject to confirmation on site and during construction. All dimensions and levels are to be confirmed on site before commencement of the works
2. All levels on structural drawings refer to the top of concrete, steel, etc. unless otherwise indicated
3. All foundations, footings and columns are symmetrical with respect to gridlines, unless otherwise indicated
4. Dimensions of beams are given as Width x Depth (Depth of beam includes slab thickness where applicable)
5. All details and dimensions pertaining to any existing structures or earthwork platforms are to be confirmed by the Contractor. The design Engineer is to be informed immediately of any unexpected aspects pertaining to these
6. The Contractor is to comply at all times with all the relevant municipal regulations, conditions of

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R

Section No. 2

Bill No. 2

Concrete, formwork &amp; reinforcement

Prepared by:

Cepma Engineering Worx (Pty) Ltd

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

approval and bylaws in the area of the site and is to ensure that a set of approved building plans is on site at all times

7. All specification documentation, drawings, etc. shall be available on site at all times
8. The Contractor shall at all times be fully responsible for quality control on site ensuring strict compliance with all drawings, details and specifications issued by the relevant design consultant. The Contractor shall submit a quality control plan for each portion of work prior to the commencement for acceptance. The works shall only commence on acceptance of the quality plan by the relevant design consultant
9. All products specified for use are to be used in strict accordance with the manufacturer's specifications and where applicable by an approved manufacturer's applicator or installer
10. Products different to those specified in the specification documentation shall only be used with prior approval of the relevant design consultant

Shop drawings:

1. Shop drawings are to be provided for all elements that are to be fabricated by the contractor's fabricator or supplier
2. All shop drawings are to be submitted to the relevant design consultant or Principal Agent for approval prior to the commencement of fabrication
3. Any fabricated elements installed without prior approval by the relevant design consultant or Principal Agent will be removed at the contractor's cost

**Carried to Collection**

Section No. 2

Bill No. 2

Concrete, formwork & reinforcement

**Prepared by:**

**Cepma Engineering Worx (Pty) Ltd**

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Foundations:

1. The design Engineer shall be notified in good time (minimum 48 hours) to inspect all foundations prior to casting of foundations or blinding layer
2. A 50mm thick blinding layer of 15Mpa/19mm concrete shall be cast under all foundations unless otherwise stated. No blinding layer is required below strip footings
3. Where a new building is to be constructed on an area where demolition of an existing building was necessary, all existing foundations, foundation brickwork and or any building remains should be completely removed before new foundations construction commences

Concrete:

1. All structural use of concrete to be in accordance with the requirements and specifications:
  - SANS 10100-1: The structural use of concrete Part 1: Design
  - SANS 10100-2: The structural use of concrete Part 2: Material and execution of work
  - SANS 2001-CC1: Construction works
2. Concrete grade
  - Blinding: 15Mpa/19mm
  - Mass concrete: 15Mpa/19mm
  - Foundations: 25Mpa/19mm
  - Column bases: 25Mpa/19mm
  - Strip footings: 25Mpa/19mm
  - Ground beams (Non-Structural): 25Mpa/19mm
  - Columns: 30Mpa/19mm
  - RC and Retaining walls: 30Mpa/19mm
  - Slabs and beams: 30Mpa/19mm
  - Surface beds: 25Mpa/19mm

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R

Section No. 2

Bill No. 2

Concrete, formwork &amp; reinforcement

Prepared by:

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3. Concrete cube tests to be carried out on all pours as per relevant SANS requirements with specific reference to sampling frequency
4. All concrete is to be mechanically vibrated and compacted
5. All positions of construction joints, casting procedures and construction methods shall be as marked/noted on the Design Engineer's drawings by the Contractor and shall be submitted and approved by the Design Engineer prior to commencement of the concrete works
6. Smooth formwork to be used throughout and stripping to occur according to SANS 2001-CC1
7. Tolerance and permissible deviations (Degree of Accuracy) to conform to SANS 2001-CC1 unless otherwise indicated
8. Curing and protection of concrete:

The contractor must adhere to the curing methods and stripping times of the various concrete elements as stipulated below. Any deviation to these must be approved by the Structural design Engineer prior to the commencement of such works

The accepted curing methods (pending element type) are:

- Ponding the exposed surface with water
- Covering the exposed surface with moisture retaining material and keeping it wet
- Continuously spraying the exposed surface with water
- Covering the concrete with waterproofing or plastic sheeting
- Use of an approved curing compound applied in accordance to the manufacturer's specifications

Accepted curing times are:

**Carried to Collection**

R

Section No. 2

Bill No. 2

Concrete, formwork & reinforcement

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- In-situ slabs & beams: 14 days
  - Columns and RC walls: 14 days
9. No kickers for walls or columns will be allowed unless otherwise indicated
  10. Only openings for services larger than 100mm diameter or 100mm x 100mm are shown on structural drawings. The Contractor must consult drawings of design consultants for openings smaller than the above mentioned. The contractor shall ensure that all sleeves, opening and embedded items for services have been placed and provided for according to the latest drawings of all disciplines prior to casting of concrete. The Contractor must obtain permission from the structural design Engineer before any opening or service larger than 100mm Diameter or 100mm x 100mm which is not indicated on the drawings may be introduced through any structural element
  11. No holes or chases other than those shown on the drawings or approved by the Structural Engineer shall be cut or formed in anyway
  12. Refer to the Design Engineer's and Architect's drawings and specifications for finishes, grooves, chamfers, etc. all exposed smooth surface concrete edges shall have 25 x 25 chamfers unless otherwise indicated. If not specified, SANS 2001-CC1 will apply
  13. The Contractor is responsible for all temporary support work. All structural elements to be propped for a minimum of 21 days
  14. Slabs shall not be used for storage of any material
  15. No brick walls are to be built on any floor slabs before the slabs have reached their 80% design strength. Propping underneath slabs and beams shall be completely removed before commencement of the brickwork
  16. Pouring height of concrete may not exceed 3m

**Carried to Collection**

Section No. 2

Bill No. 2

Concrete, formwork & reinforcement

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unless authorised in writing by the Structural design Engineer

17. Construction (Casting) joints:

- No horizontal joints are allowed in bases, beams or slabs
- Construction joints shall be carried out strictly in accordance with the specification
- Construction joints in retaining walls and slabs shall be discussed with the Design Engineer prior to construction
- Construction joint in slab:

The recommended slope of the joint shall be 15 degrees from the vertical. The surface of the old concrete shall be brushed clean within 24 hours after casting to expose the aggregate and wetted thoroughly before placing new concrete

18. All pipes, sleeves, conduits, etc. passing through an expansion joint shall be provided with an approved flexible coupling

Reinforcement:

1. All reinforcement is to be checked and approved by the design Engineer prior to casting concrete
2. The design Engineer is to be given a minimum of 48 hours notice before reinforcement inspections. The design Engineer shall only inspect reinforcement after the Contractor has signed the reinforcement off as ready for casting. This will require all reinforcement to be completely fixed in position, formwork to be clean and spacers in position
3. All loose corrosion to be removed from reinforcement prior to fixing
4. Bending schedules and fixing details for reinforcement will be issued in accordance with the Contractor's construction program and progress on site

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Section No. 2

Bill No. 2

Concrete, formwork & reinforcement

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5. Minimum concrete cover to reinforcement (unless specified differently in bending schedules or on drawings):
  - Foundations: Bottom = 75mm; Top & sides = 50mm
  - Ground beams: 50mm
  - Columns: 40mm to the sturrrup
  - Slab: top & bottom = 30mm; Sides = 40mm
  - Beams: 40mm
  - RC Walls (Excluding retaining walls): 40mm
  - Retaining walls: 50mm
6. It is the Contractor's responsibility to ensure that all reinforcement and cover blocks are correctly and accurately fixed and remain in place during pouring
7. The design Engineer will not be responsible for any concrete cast where he was not notified to carry out a reinforcement inspection
8. No heat treatment, flame cutting or cutting of steel shall be allowed without the written approval of the responsible design Engineer
9. Bend-out bars at construction joints shall be bent out using a suitable tool so that no kink is formed in the bar
10. All reinforcement laps - minimum 50xBar diameter (unless lap is dimensioned)

Isolation joints:

1. Isolation joints (10mm jointex, 33kg/m2 density) to be provided around all concrete and steel columns and against brick walls. All isolation and expansion joints to be sealed with flexible sealant

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Section No. 2

Bill No. 2

Concrete, formwork &amp; reinforcement

Prepared by:

Cepma Engineering Worx (Pty) Ltd

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Samples:

1. A sample of any approved product must be delivered to site for sign off by the relevant design consultant or Principal Agent prior to commencement of the installation

**UNREINFORCED CONCRETE CAST IN/ON MASONRY (PROVISIONAL)****Class 14Mpa/7mm concrete:**

- |   |                  |    |    |
|---|------------------|----|----|
| 1 | In cavities (LI) | m3 | 29 |
|---|------------------|----|----|

**UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES (PROVISION)****Class 15Mpa/19mm concrete:**

- |   |                  |    |    |
|---|------------------|----|----|
| 2 | In Blinding (LI) | m3 | 88 |
|---|------------------|----|----|

**REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES (PROVISIONAL)****Class 25MPa/19mm concrete:**

- |   |                     |    |    |
|---|---------------------|----|----|
| 3 | Strip footings (LI) | m3 | 51 |
|---|---------------------|----|----|

**Class 30MPa/19mm concrete:**

- |   |                     |    |     |
|---|---------------------|----|-----|
| 4 | Strip footings (LI) | m3 | 328 |
|---|---------------------|----|-----|

**REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES****Class 25MPa/19mm concrete:**

- |   |                                  |    |    |
|---|----------------------------------|----|----|
| 5 | Surface beds (LI)                | m3 | 59 |
| 6 | Surface beds cast in panels (LI) | m3 | 19 |

Carried to Collection

R

Section No. 2

Bill No. 2

Concrete, formwork &amp; reinforcement

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**REINFORCED CONCRETE CAST ON/IN FORMWORK****Class 30Mpa/19mm Concrete:**

7	Bases (Provisional) (LI)	m3	409
8	Slabs including beams and inverted beams (LI)	m3	1,052
9	Coffered slabs (LI)	m3	975
10	In stairs and landings (LI)	m3	17
11	Columns in foundations (Provisional) (LI)	m3	29
12	Columns (LI)	m3	66
13	Retaining walls in foundations (Provisional) (LI)	m3	131
14	Retaining walls (LI)	m3	118
15	Walls in foundations (Provisional) (LI)	m3	1
16	Walls (LI)	m3	62
17	In plinths (LI)	m3	10

**TEST CUBES**

For each pour tested, 3(No.) cubes will be expected to account for 7 days, 14 days and 28 day strengths all in accordance with the Engineer's specifications

18	Making and testing 150 x 150 x 150mm concrete strength test cube (Provisional)	No	150
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**CONCRETE SUNDRIES****Class U2 wood float finish to:**

19	Surface beds, slabs, etc.	m2	806
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R

Section No. 2

Bill No. 2

Concrete, formwork &amp; reinforcement

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**Mechanical power floating of concrete surfaces:**

- |    |   |    |       |
|----|---|----|-------|
| 20 | Mechanical power float and mechanical steel trowel top of concrete surface bed with class U2 finish | m2 | 6,767 |
|----|---|----|-------|

**FORMWORK****Smooth formwork to:****To sides:**

- |    |   |    |     |
|----|---|----|-----|
| 21 | Edges, risers, ends and reveals not exceeding 300mm high or wide  | m  | 324 |
| 22 | Edges, risers, ends and reveals exceeding 300mm high or wide  | m2 | 9   |
| 23 | Rectangular or square columns in foundations not exceeding 3,5m (Provisional)   | m2 | 12  |
| 24 | Rectangular or square columns exceeding 1,5m and not exceeding 3,5m high  | m2 | 463 |
| 25 | Rectangular or square columns in foundations with circular outer ends with a diameter not exceeding 1m at height not exceeding 3,5m (Provisional) | m2 | 245 |
| 26 | Rectangular or square columns with circular outer ends with a diameter not exceeding 1m propped to a height not exceeding 3,5m high               | m2 | 345 |
| 27 | Beams   | m2 | 674 |
| 28 | Beams propped up exceeding 1,5m and not exceeding 3,5m high   | m2 | 865 |
| 29 | Of retaining walls in foundations not exceeding 3,5m high from bearing level (Provisional)  | m2 | 516 |
| 30 | Of retaining walls not exceeding 3,5m high from bearing level   | m2 | 465 |

**Carried to Collection****R**

Section No. 2

Bill No. 2

Concrete, formwork &amp; reinforcement

**Prepared by:****Cepma Engineering Worx (Pty) Ltd**

31	Of retaining walls exceeding 3,5m high and not exceeding 5,0m high from bearing level	m2	3
32	Of walls in foundations (Provisional)	m2	11
33	Of walls not exceeding 3,5m high from bearing level	m2	291
	<u>To soffits:</u>		
34	To soffits of slabs propped exceeding 1,5m and not exceeding 3,5m high	m2	3,806
	<u>To soffits of coffered slabs:</u>		
35	To soffits of slabs propped exceeding 1,5m and not exceeding 3,5m high	m2	1,932
	<u>To soffits of adjacent flush surfaces of coffered slabs:</u>		
36	To soffits of adjacent flush surfaces of coffered slabs propped exceeding 1,5m and not exceeding 3,5m high	m2	998
	<u>To coffers:</u>		
37	900 x 900 x 325mm deep coffer	No	2,519
	<u>To form opening:</u>		
38	Not exceeding 1m girth in slab not exceeding 300mm thickness	No	29
39	Exceeding 1m girth and not exceeding 2m slab not exceeding 300mm thickness	No	170
40	Exceeding 2m girth and not exceeding 3m slab not exceeding 300mm thickness	No	449
	<u>To racking soffits:</u>		
41	To racking soffits not exceeding 1,5m high	m2	11
42	To racking soffits exceeding 1,5m and not exceeding 3,5m high	m2	114

Carried to Collection

R

Section No. 2

Bill No. 2

Concrete, formwork &amp; reinforcement

Prepared by:

Cepma Engineering Worx (Pty) Ltd

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

	<u>Boxing out smooth formwork to form:</u>			
43	45 x 45mm High Horizontal projections to sides along top edge	m	469	
	<u>Rough formwork to:</u>			
	<u>To sides:</u>			
44	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	463	
45	Bases (Provisional)	m2	522	
46	Of retaining walls in foundations (Provisional)	m2	420	
47	Of retaining walls not exceeding 3,5m high from bearing level	m2	480	
	<u>MOVEMENT JOINTS, ETC.</u>			
	<u>Expansion joints with 24mm bitumen impregnated soft board between vertical concrete and brick surfaces:</u>			
48	Vertically between concrete or brick surfaces exceeding 300mm	m2	369	
49	Vertically between concrete and brick surfaces not exceeding 300mm wide	m	983	
50	Horizontal between concrete and brick surfaces not exceeding 300mm wide	m	217	
	<u>Expansion joints with 10mm bitumen impregnated soft board between vertical concrete and brick surfaces:</u>			
51	Horizontal between concrete and brick surfaces not exceeding 300mm wide	m	35	

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R

Section No. 2

Bill No. 2

Concrete, formwork &amp; reinforcement

Prepared by:

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**Saw cut joints:**

52	Form 3mm wide x 40mm deep saw cut to top of concrete within 12 hours of pouring	m	887
----	---	---	-----

**5mm Thick "Cartonal drainage" or similar approved protection boarding:**

53	To Walls and retaining walls	m2	142
----	------------------------------	----	-----

**REINFORCEMENT****Mild / High tensile steel reinforcement:**

54	Reinforcement bars (all diameters)	t	332
----	------------------------------------	---	-----

**High tensile steel welded mesh:**

55	Mesh Ref 245	m2	6,959
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56	Mesh Ref 193	m2	614
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Carried to Collection

R

Section No. 2

Bill No. 2

Concrete, formwork &amp; reinforcement

Prepared by:

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Section No. 2

Bill No. 2

Concrete, formwork &amp; reinforcement

**COLLECTION**

Total Brought Forward from Page No.

Page  
No

Amount

65

66

67

68

69

70

71

72

73

74

75

76

77

78

Carried Forward to Summary of Section No. 2

R

Section No. 2

Bill No. 2

Concrete, formwork &amp; reinforcement

Prepared by:

Cepma Engineering Worx (Pty) Ltd

-80-



Material samples:

1. Before commencement of any work, the contractor will be required to timeously supply a sample of the material to be used to the Principal Agent for approval at no cost
2. Material installed without prior approval from the Principal Agent will be removed at the contractor's cost

Materials removed:

1. All material removed from demolitions is to remain the property of the employer unless otherwise permission has been granted

General:

1. All details and dimensions shown on the drawings are subject to confirmation on site and during construction. All dimensions and levels are to be confirmed on site before commencement of the works
2. All levels on structural drawings refer to the top of concrete, steel, etc. unless otherwise indicated
3. All foundations, footings and columns are symmetrical with respect to gridlines, unless otherwise indicated
4. Dimensions of beams are given as Width x Depth (Depth of beam includes slab thickness where applicable)
5. All details and dimensions pertaining to any existing structures or earthwork platforms are to be confirmed by the Contractor. The design Engineer is to be informed immediately of any unexpected aspects pertaining to these
6. The Contractor is to comply at all times with all the relevant municipal regulations, conditions of

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R

Section No. 2

Bill No. 3

Masonry

Prepared by:

Cepma Engineering Worx (Pty) Ltd

approval and bylaws in the area of the site and is to ensure that a set of approved building plans is on site at all times

7. All specification documentation, drawings, etc. shall be available on site at all times
8. The Contractor shall at all times be fully responsible for quality control on site ensuring strict compliance with all drawings, details and specifications issued by the relevant design consultant. The Contractor shall submit a quality control plan for each portion of work prior to the commencement for acceptance. The works shall only commence on acceptance of the quality plan by the relevant design consultant
9. All products specified for use are to be used in strict accordance with the manufacturer's specifications and where applicable by an approved manufacturer's applicator or installer
10. Products different to those specified in the specification documentation shall only be used with prior approval of the relevant design consultant

Shop drawings:

1. Shop drawings are to be provided for all elements that are to be fabricated by the contractor's fabricator or supplier
2. All shop drawings are to be submitted to the relevant design consultant or Principal Agent for approval prior to the commencement of fabrication
3. Any fabricated elements installed without prior approval by the relevant design consultant or Principal Agent will be removed at the contractor's cost

Brickwork:

1. Setting out of all brickwork to Architect's drawings.

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R

Section No. 2

Bill No. 3

Masonry

Prepared by:

Cepma Engineering Worx (Pty) Ltd

2. All brickwork to comply and to be built in accordance with SANS 10164, SANS 10400, SANS 2001-CM1 and the NHBRC Home Building Manuals (Part 1 & 2)
3. Clay bricks to comply with SANS 0227: Burnt clay masonry units. Clay bricks to have a nominal compressive strength in accordance with SANS 987 (7Mpa). Bricks to be at least 28 days old when delivered to site. All bricks are to be SANS approved. SANS certificates older than three (3) months will not be acceptable
4. Brickforce details:
  5. Minimum diameter of brickforce - 2.8mm.
  6. Yield strength - 485Mpa
  7. Lap length (min) - 250mm
  8. Brickforce spacing for rising brickwork - Every course
  9. Brickforce spacing for normal brickwork - Every 3rd course
  10. Brickforce spacing directly over openings - Every course for 5 courses (extending 500mm either side of opening)
  11. Brickforce spacing below floor slab soffit, eaves beam and wall plate level - Every course for 5 courses below
12. Wall ties will be as per SANS 10400 & SANS 1064:
  - Cavity less than 75mm: Butterfly wire ties @ 2.5/m<sup>2</sup>
  - Cavity greater than 75mm but not greater than 150mm: Vertical twist wall ties @ 3.0/m<sup>2</sup>
13. All single skin and cavity wall brickwork abutting reinforcement, concrete or steel columns shall be tied to the element by means of 32 x 1.2mm galvanised hoop-iron straps shot-fired into concrete through 10mm jointex at a minimum spacing of every 4th course. Hoop-iron to be built-in a minimum of 700mm brickwork

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R

Section No. 2

Bill No. 3

Masonry

Prepared by:

Cepma Engineering Worx (Pty) Ltd



FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male & Female  
Inpatient & Outpatient Mental Health Unit

14. All wall ties, brick anchors and straps shall be hot dip galvanised
15. All non-load bearing brickwork to stop 10mm (unless indicated otherwise) below soffit of slabs and sealed in accordance with the Architect's specifications
16. All lintels to comply with and be built in accordance to SANS 1504-1990
17. Precast lintels with a minimum of 4 courses of brickwork over with continuous brickwork in every course (extending 500mm either side of opening) over every opening not exceeding 3m
18. For openings exceeding 3m, refer to composite brick-beam details as specified in SANS 10400
19. All chasing to comply with NHBRC Home Building Manual (Part 1 & 2)
20. Slip joints:
  - Provide 2 layers of 250 Micron DPC where load bearing brickwork will be in contact with newly poured wet concrete
21. All load bearing brickwork should be built before formwork and casting of concrete commences
22. Where joints are shown in concrete, similar joints shall be constructed in brick walls, screeds and finishes. Joints in brickwork to conform to SANS 10400-Part B
23. V-joints are to be made right through plaster work where brickwork joins onto concrete

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R

Section No. 2

Bill No. 3

Masonry

Prepared by:

Cepma Engineering Worx (Pty) Ltd

Façade cladding:

1. Façade cladding is to be fixed to walls on an aluminium subframe all inaccordance with the manufacturer's specifications and Architect's details
2. Where façade is installed over a window, the pricing of such façade will include for a window sill with a 5 degree fall all inaccordance with the Architect's details

Perforated screens:

1. Aluminium perforated panels are fixed to slabs using aluminium subframes by specialists and manufacturer's specifications
2. Material shall be of 6063T6 aluminium alloy with a minimum structural wall thickness of 2.00mm. Manufacturer to use 3mm thick aluminium sheet perforated to architects design. Sub structure to be made up of 100mm x 50mm x 2mm aluminium rectangular tubing
3. All structural sections shall be of tubular construction. Joinery shall be notched and screwed to spigots with M10 316 stainless steel bolts and wedge anchors. Structural fixings to wall to use M10 316 Stainless steel chemical anchors. Screen panels to have a 25mm return lip all round for concealed fixings
4. Sections will be finished anodised or painted in accordance with SANS 999 for anodising or SANS 1578 Parts1 & 2 for painting as specified. Class 2 Powder Coating by a SANS approved applicator, type Interpon D2525
5. System shall meet or exceed the requirements of AAAMSA and the design loading will be 1500pa. Façade engineers design and sign off to be included on completion of the installation

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R

Section No. 2

Bill No. 3

Masonry

Prepared by:

Cepma Engineering Worx (Pty) Ltd

Samples:

1. A sample of any approved product must be delivered to site for sign off by the relevant design consultant or Principal Agent prior to commencement of the installation

**BRICKWORK****Brickwork of clay imperial bricks (14 MPa nominal compressive strength) in class I mortar in foundations (Provisional):**

1	280mm Cavity wall comprising of 2(No.) half brick skins (LI)	m2	239
2	One brick walls (LI)	m2	312
3	Half brick walls (LI)	m2	26

**Brickwork of NFX bricks (14 MPa nominal compressive strength) in class II mortar:**

4	490mm Cavity wall comprising of 2(No.) one brick skins (LI)	m2	30
5	280mm Cavity wall comprising of 2(No.) half brick skins (LI)	m2	1,623
6	One brick walls (LI)	m2	4,356
7	Half brick walls (LI)	m2	152

**Brickwork of NFP bricks in class II mortar:**

8	280mm Cavity wall comprising of 2(No.) half brick skins (LI)	m2	11
9	One brick walls (LI)	m2	85
10	Half brick walls (LI)	m2	1,169

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R

Section No. 2

Bill No. 3

Masonry

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**FACILITY: General Justice Gizenga Mpanza Regional Hospital**  
**DESCRIPTION: New 28 Bedded Male & Female**  
**Inpatient & Outpatient Mental Health Unit**

11	Half brick walls in beam filling (LI)	m2	139
<b><u>FACE BRICKWORK</u></b>			
<b><u>Test panel comprising of approved face brickwork:</u></b>			
12	1500mm long x 1500mm high 280mm cavity brick test wall panel faced on both sides and having 280mm coping built on and including a 25Mpa/19mm stone base size. 1800mm long x 500mm wide x 250mm thick including demolition of the entire structure thereof	No	2
13	1500mm long x 1500mm high 230mm brick test wall panel faced on both sides and having 230mm coping built on and including a 25Mpa/19mm stone base size. 1800mm long x 500mm wide x 250mm thick including demolition of the entire structure thereof	No	2
<b><u>Approved clay face brickwork in stretcher bond pointed with square recessed horizontal and vertical joints in class II mortar (Allow a PC sum of R7.00 per brick):</u></b>			
14	Extra over ordinary brickwork for face brickwork in foundations (Provisional) (LI)	m2	212
15	Extra over ordinary brickwork for face brickwork (LI)	m2	2,874
16	One brick wall pointed on both sides (LI)	m2	66
<b><u>Header course copings, sills, etc. of approved clay face bricks pointed with recessed joints on all exposed faces (Allow a PC sum of R7.00 per brick):</u></b>			
17	Brick-on-edge sill set sloping and slightly projecting (LI)	m	82
18	Brick-on-edge roller course lintol to suite 280mm wall	m	104
19	Brick-on-edge roller course lintol to suite 230mm wall	m	46
20	Brick-on-edge roller course lintol to suite 115mm wall	m	2
21	Brick-on-edge roller course coping to suite 280mm wall	m	79

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**R**

Section No. 2

Bill No. 3

Masonry

**Prepared by:**

**Cepma Engineering Worx (Pty) Ltd**

22	Brick-on-edge roller course coping to suite 230mm wall	m	71
<b><u>PRESTRESSED, PRECAST CONCRETE:</u></b>			
<b><u>Approved prestressed fabricated lintols:</u></b>			
23	110 x 75mm Lintols in lengths exceeding 3m and not exceeding 4,5m (LI)	m	13
24	110 x 75mm Lintels in lengths not exceeding 3m (LI)	m	621
<b><u>BRICKWORK SUNDRIES</u></b>			
<b><u>Galvanised brickwork reinforcement:</u></b>			
25	"Brickforce" wire mesh reinforcement, 150mm wide, built into walls and lintols	m	30,877
26	"Brickforce" wire mesh reinforcement, 75mm wide, built into walls and lintols	m	34,092
<b><u>Turning pieces:</u></b>			
27	Turning piece to flat arch 280mm wide on soffit, including all wedging and propping	m	104
28	Turning piece to flat arch 230mm wide on soffit, including all wedging and propping	m	46
29	Turning piece to flat arch 115mm wide on soffit, including all wedging and propping	m	2
<b><u>Cement wash of 1:3 liquid cement and sand mixture applied with a brush:</u></b>			
30	On brick walls, piers, etc.	m2	4,866
<b><u>Slip joints between masonry and concrete surfaces all in accordance with the Engineer's specifications:</u></b>			
31	280mm wide Slip joint forming V-Joint in plaster comprising of 3-Fold heavy duty PVC membrane complete with and including a 10mm level mortar bed	m	8

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R

Section No. 2

Bill No. 3

Masonry

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32	230mm wide Slip joint forming V-Joint in plaster comprising of 3-Fold heavy duty PVC membrane complete with and including a 10mm level mortar bed	m	1,171
33	115mm wide Slip joint forming V-Joint in plaster comprising of 3-Fold heavy duty PVC membrane complete with and including a 10mm level mortar bed	m	1,136

**SEATING BENCHES**

The following in outdoor seating benches comprising of brick legs and concrete seating surfaces with smooth finish

**Approved clay face brickwork in stretcher bond pointed with square recessed horizontal and vertical joints in class II mortar (Allow a PC sum of R15,00 per brick):**

34	One brick wall pointed on both sides (LI)	m2	5
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**Slip joints between masonry and concrete surfaces all in accordance with the Engineer's specifications:**

35	230mm wide Slip joint forming V-Joint in plaster comprising of 3-Fold heavy duty PVC membrane complete with and including a 10mm level mortar bed	m	9
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**Class 25Mpa/19mm Concrete:**

36	In seating bench slabs (LI)	m3	1
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**Class U2 wood float finish to:**

37	Surface beds	m2	8
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**Smooth formwork to sides:**

38	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	31
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R

Section No. 2

Bill No. 3

Masonry

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FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male & Female  
Inpatient & Outpatient Mental Health Unit

<b><u>Smooth formwork to soffits:</u></b>				
39	To soffit of slabs propped up not exceeding 1,5m high and removing from confined area	m2	8	
<b><u>High tensile steel welded mesh:</u></b>				
40	Mesh Ref 245	m2	8	
<b><u>"Sikaflex 11fc" or similar approved polysulphide sealing compound including backing cord, 12.5mm bond breaking cord, primer, etc. all in accordance with the Engineer's specifications:</u></b>				
41	15mm wide x 12mm deep In expansion joints in walls	m	25	
<b><u>One coat cement 4:1 cement plaster on concrete:</u></b>				
42	On slabs	m2	12	
<b><u>COMPOSITE ALUMINIUM WALL CLADDING PANELS:</u></b>				
<b><u>5mm Thick "Hulabond" or similar approved aluminium composite panels consisting of two sheets of aluminium bonded to a polyethylene core with a metallic PVDF paint finish installed on masonry/timber/concrete surfaces complete with an approved attachment system to ensure extra strength for high wind conditions and large modules all in accordance with the manufacturer's specifications and according to the Architect's specifications and drawing No. WL-02-2036 Rev A - Facade cladding: Setting out drawing and elevations and drawing No. WD-XX-9025 Rev B: Typical facade and cladding detail:</u></b>				
43	Panel Ref. EE-01 overall size. 4260mm long x 3500mm high with a combination of the following coloured panels P3 - "Anthrazit Grey Code AC2011" and P4 - "Black Code AC2012"	No	1	
Carried to Collection				R
Section No. 2				
Bill No. 3				
Masonry				
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**FACILITY: General Justice Gizenga Mpanza Regional Hospital**  
**DESCRIPTION: New 28 Bedded Male & Female**  
**Inpatient & Outpatient Mental Health Unit**

44	Panel Ref. EE-02 overall size. 6692mm long x 3500mm high with a combination of the following coloured panels P3 - "Anthrazit Grey Code AC2011" and P4 - "Black Code AC2012"	No	1		
45	Panel Ref. EE-03 overall size. 3700mm long x 3500mm high with a combination of the following coloured panels P1 - "Pure White Code AC2001" and P4 - "Black Code AC2012"	No	1		
46	Panel Ref. EE-04 overall size. 14495mm long x 3500mm high with a combination of the following coloured panels P1 - "Pure White Code AC2001" and P3 - "Anthrazit Grey Code AC2011"	No	1		
47	Panel Ref. EE-05 overall size. 5590mm long x 4025mm high with a combination of the following coloured panels P1 - "Pure White Code AC2001" and P3 - "Anthrazit Grey Code AC2011"	No	1		
48	Panel Ref. EE-06 overall size. 2918mm long x 3500mm high with a combination of the following coloured panels P3 - "Anthrazit Grey Code AC2011" and P4 - "Black Code AC2012"	No	1		
49	Panel Ref. NE-01 overall size. 19785mm long x 4025mm high with a combination of the following coloured panels P1 - "Pure white Code AC2001" and P3 - "Anthrazit Grey Code AC2011"	No	1		
50	Panel Ref. NE-02 overall size. 19510mm long x 4025mm high with a combination of the following coloured panels P1 - "Pure white Code AC2001" and P3 - "Anthrazit Grey Code AC2011"	No	1		
51	Panel Ref. NE-03 overall size. 885mm long x 2805mm high with the panel finished in the following colour P1 - "Pure White Code AC2001"	No	1		
52	Panel Ref. SE-01 overall size. 4708mm long x 3500mm high with a combination of the following coloured panels P1 - "Pure white Code AC2001"; P3 - "Anthrazit Grey Code AC2011" and P4 - "Black Code AC2012"	No	1		
<b>Carried to Collection</b>				R	
Section No. 2					
Bill No. 3					
Masonry					
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## FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male & Female  
Inpatient & Outpatient Mental Health Unit

53	Panel Ref. SE-02 overall size. 8715mm long x 3500mm high with a combination of the following coloured panels P3 - "Anthrazit Grey Code AC2011" and P4 - "Black Code AC2012"	No	1		
54	Panel Ref. SE-03 overall size. 3295mm long x 3500mm high with a combination of the following coloured panels P3 - "Anthrazit Grey Code AC2011" and P4 - "Black Code AC2012"	No	1		
55	Panel Ref. SE-04 overall size. 2755mm long x 3500mm high with a combination of the following coloured panels P3 - "Anthrazit Grey Code AC2011" and P4 - "Black Code AC2012"	No	1		
56	Panel Ref. SE-05 overall size. 4660mm long x 3500mm high with a combination of the following coloured panels P1 - "Pure White Code AC2001"; P3 - "Anthrazit Grey Code AC2011" and P4 - "Black Code AC2012"	No	1		
57	Panel Ref. SE-06 overall size. 7435mm long x 3500mm high with a combination of the following coloured panels P1 - "Pure White Code AC2001" and P4 - "Black Code AC2012"	No	1		
58	Panel Ref. SE-07 overall size. 885mm long x 2805mm high with the panel finished in the following colour P1 - "Pure White Code AC2001"	No	1		
59	Panel Ref. WE-01 overall size. 7660mm long x 4025mm high with a combination of the following coloured panels P1 - "Pure White Code AC2001" and P3 - "Anthrazit Grey Code AC2011"	No	1		
60	Panel Ref. WE-02 overall size. 23490mm long x 4025mm high with a combination of the following coloured panels P1 - "Pure White Code AC2001" and P3 - "Anthrazit Grey Code AC2011"	No	1		
61	Panel Ref. WE-03 overall size. 4450mm long x 4025mm high with a combination of the following coloured panels P1 - "Pure White Code AC2001" and P3 - "Anthrazit Grey Code AC2011"	No	1		
Carried to Collection					R
Section No. 2					
Bill No. 3					
Masonry					
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- 62 Panel Ref. WE-04 overall size. 16905mm long x 4025mm high with a combination of the following coloured panels P1 - "Pure White Code AC2001" and P3 - "Anthrazit Grey Code AC2011"

No

1

**PERFORATED ALUMINIUM SCREENS**

**"Legacy Façades by Aluminium Doctor" or similar approved 3mm thick aluminium perforated panels with 25mm return lip all round for concealed fixings mounted onto 100 x 50 x 2mm thick rectangular aluminium tubing with the aluminium panels notched and screwed to spigots with M10 316 stainless steel bolts and wedge anchors and installed onto concrete all in accordance with the Architects detail (Ref to drawing WD-XX-9029 - Typical perforated screens detail layout) and installed all in accordance with the manufacturer's specifications:**

- 63 Screen size. 5785mm long x 4400mm high
- 64 Screen size. 5000mm long x 4400mm high
- 65 Screen size. 4800mm long x 4400mm high
- 66 Screen size. 4400mm long x 4400mm high
- 67 Screen size. 3400mm long x 4400mm high
- 68 Screen size. 2100mm long x 4400mm high
- 69 Screen size. 1300mm long x 4400mm high

No

1

No

4

No

2

No

1

No

1

No

1

No

1

Carried to Collection

R

Section No. 2

Bill No. 3

Masonry

Prepared by:

Cepma Engineering Worx (Pty) Ltd

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

Section No. 2

Bill No. 3

Masonry

**COLLECTION**

Total Brought Forward from Page No.

Page  
No

Amount

80

81

82

83

84

85

86

87

88

89

90

91

92

93

Carried Forward to Summary of Section No. 2

R

Section No. 2

Bill No. 3

Masonry

Prepared by:

Cepma Engineering Worx (Pty) Ltd





FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

Material samples:

1. Before commencement of any work, the contractor will be required to timeously supply a sample of the material to be used to the Principal Agent for approval at no cost
2. Material installed without prior approval from the Principal Agent will be removed at the contractor's cost

Materials removed:

1. All material removed from demolitions is to remain the property of the employer unless otherwise permission has been granted

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R

Section No. 2

Bill No. 4

Waterproofing

Prepared by:

Cepma Engineering Worx (Pty) Ltd

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

General:

1. All details and dimensions shown on the drawings are subject to confirmation on site and during construction. All dimensions and levels are to be confirmed on site before commencement of the works
2. All levels on structural drawings refer to the top of concrete, steel, etc. unless otherwise indicated
3. The Contractor is to comply at all times with all the relevant municipal regulations, conditions of approval and bylaws in the area of the site and is to ensure that a set of approved building plans is on site at all times
4. All specification documentation, drawings, etc. shall be available on site at all times
5. The Contractor shall at all times be fully responsible for quality control on site ensuring strict compliance with all drawings, details and specifications issued by the relevant design consultant. The Contractor shall submit a quality control plan for each portion of work prior to the commencement for acceptance. The works shall only commence on acceptance of the quality plan by the relevant design consultant
6. All products specified for use are to be used in strict accordance with the manufacturer's specifications and where applicable by an approved manufacturer's applicator or installer
7. Products different to those specified in the specification documentation shall only be used with prior approval of the relevant design consultant

Carried to Collection

R

Section No. 2

Bill No. 4

Waterproofing

Prepared by:

Cepma Engineering Worx (Pty) Ltd

Shop drawings:

1. Shop drawings are to be provided for all elements that are to be fabricated by the contractor's fabricator or supplier
2. All shop drawings are to be submitted to the relevant design consultant or Principal Agent for approval prior to the commencement of fabrication
3. Any fabricated elements installed without prior approval by the relevant design consultant or Principal Agent will be removed at the contractor's cost

Surface beds:

1. All surface beds to have a minimum thickness of 250 micron dump proof membrane below them with adequate laps and turned up to the full depth of the surface bed as bond breaker (isolation joint) against all brickwork on all sides

Samples:

1. A sample of any approved product must be delivered to site for sign off by the relevant design consultant or Principal Agent prior to commencement of the installation

**DAMPPROOFING OF WALLS AND FLOORS****Approved 375 Micron embossed damp proof course:**

1	One layer to walls, reveals, below cills, etc. (LI)	m2	352
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**Approved 250 Micron Green waterproof sheeting on earth, sealed at laps and ends with pressure sensitive tape":**

2	One layer under surface beds, slabs, etc. (LI)	m2	709
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Section No. 2

Bill No. 4

Waterproofing

Prepared by:

Cepma Engineering Worx (Pty) Ltd

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**JOINT SEALANTS, ETC.**

**"Sikaflex 11fc" or similar approved polysulphide sealing compound including backing cord, 12,5mm bond breaking cord, primer, etc. all in accordance with the Engineer's specifications:**

3	24mm wide x 15mm deep In expansion joints in floors	m	103
4	10mm wide x 15mm deep In expansion joints in floors	m	39
5	15mm wide x 12mm deep In expansion joints in walls	m	3,714
6	24mm wide x 15mm deep In expansion joints in walls	m	1,977
7	50mm wide x 12mm deep In expansion joints in walls	m	377
8	3mm wide x 15mm Deep in saw cut joints	m	901

**"Secomastic" or similar approved non-hardening waterproofing compound in pointing all round frames at junction with brickwork or concrete and leave perfectly watertight:**

9	Between aluminium and or glass and concrete surround	m	446
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**WATERPROOFING TO ROOFS, BASEMENTS, ETC**

**Single layer of 4mm "Derbigum SP" or similar approved fully bonded waterproofing membrane installed complete with all necessary fillets, etc. in strict accordance with the manufacturer's specifications:**

10	On Walls	m2	591
11	On flat floors	m2	3,292
12	Sealing edges to brickwork or concrete	m	1,962

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R

Section No. 2

Bill No. 4

Waterproofing

Prepared by:

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Double layer of 4mm "Derbigum SP" or similar approved fully bonded waterproofing membrane installed complete with all necessary fillets, etc. in strict accordance with the manufacturer's specifications:

13	On flat floors	m2	462
14	Sealing edges to brickwork or concrete	m	1,887

#### DAMPPROOFING OF WALLS AND FLOORS

Prepare, prime with one approved water proof slurry, consisting of one part "Sika Cemflex" to 1 part water to 3.4kg portland cement, apply fabric to primed surface and seal with final slurry coat to:

15	On screeded shower floors, etc. including turn-ups or turn-downs not exceeding 300mm including dressing into outlets	m2	30
16	Shower walls, leaving to cure for 48 hours and prepare to receive tiling (elsewhere)	m2	432

Prepare, prime with one an approved water proof slurry, consisting of one part "Cemflex" to 1 part water to 3.4kg portland cement, apply fabric to primed surface and seal with final slurry coat to:

17	On bagged brickwork, etc. (LI)	m2	3,148
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"Sikalastic-152" waterproofing mortar or similar approved applied in strict accordance with the manufacturer's specifications:

18	6mm thick on walls	m2	1,466
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#### PROTECTIVE ROOFING PAINT

Two coats of "Silvakote" or similar approved bituminous aluminium paint:

19	On waterproofing to roofs	m2	501
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R

Section No. 2

Bill No. 4

Waterproofing

Prepared by:

Cepma Engineering Worx (Pty) Ltd

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

Section No. 2

Bill No. 4

Waterproofing

**COLLECTION**

Total Brought Forward from Page No.

Page  
No

Amount

95

96

97

98

99

100

Carried Forward to Summary of Section No. 2

R

Section No. 2

Bill No. 4

Waterproofing

Prepared by:

Cepma Engineering Worx (Pty) Ltd



-102-

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male & Female  
Inpatient & Outpatient Mental Health UnitMaterial samples:

1. Before commencement of any work, the contractor will be required to timeously supply a sample of the material to be used to the Principal Agent for approval at no cost
2. Material installed without prior approval from the Principal Agent will be removed at the contractor's cost

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R

Section No. 2

Bill No. 5

Roof coverings

Prepared by:

Cepma Engineering Worx (Pty) Ltd

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male & Female  
Inpatient & Outpatient Mental Health UnitGeneral:

1. All details and dimensions shown on the drawings are subject to confirmation on site and during construction. All dimensions and levels are to be confirmed on site before commencement of the works
2. All levels on structural drawings refer to the top of concrete, steel, etc. unless otherwise indicated
3. The Contractor is to comply at all times with all the relevant municipal regulations, conditions of approval and bylaws in the area of the site and is to ensure that a set of approved building plans is on site at all times
4. All specification documentation, drawings, etc. shall be available on site at all times
5. The Contractor shall at all times be fully responsible for quality control on site ensuring strict compliance with all drawings, details and specifications issued by the relevant design consultant. The Contractor shall submit a quality control plan for each portion of work prior to the commencement for acceptance. The works shall only commence on acceptance of the quality plan by the relevant design consultant
6. All products specified for use are to be used in strict accordance with the manufacturer's specifications and where applicable by an approved manufacturer's applicator or installer
7. Products different to those specified in the specification documentation shall only be used with prior approval of the relevant design consultant

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R

Section No. 2

Bill No. 5

Roof coverings

Prepared by:

Cepma Engineering Worx (Pty) Ltd



Shop drawings:

1. Shop drawings are to be provided for all elements that are to be fabricated by the contractor's fabricator or supplier
2. All shop drawings are to be submitted to the relevant design consultant or Principal Agent for approval prior to the commencement of fabrication
3. Any fabricated elements installed without prior approval by the relevant design consultant or Principal Agent will be removed at the contractor's cost

Samples:

1. A sample of any approved product must be delivered to site for sign off by the relevant design consultant or Principal Agent prior to commencement of the installation

**PROFILED METAL SHEETING AND ACCESSORIES**

**Approved 0,8mm powder coated Aluminium ZipTech 420 or similar approved concealed fixing system roof sheeting fixed to structural steel purlins (elsewhere measured) all in accordance with the manufacturer's specifications:**

- |   |  |    |       |
|---|--|----|-------|
| 1 | Roof coverings with pitch not exceeding 25° degrees (LI) | m2 | 3,511 |
|---|--|----|-------|

**PROFILED METAL ROOF SHEETING AND ACCESSORIES**

Carried to Collection

R

Section No. 2

Bill No. 5

Roof coverings

Prepared by:

Cepma Engineering Worx (Pty) Ltd

**0,55mm Z150 galvanised sheet steel in single lengths installed complete with accessories with silicone polyester paint finish on one side to match roof colour and fixed into brick or concrete all in accordance with the Architect's specifications:**

2	Head wall flashing 760mm girth complete with all material and labour to provide a waterproof junction between the roof sheeting and wall, including forming groove in brickwork	m	46
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3	Counter flashing 295mm girth complete with all material and labour to provide a waterproof junction between the roof sheeting and wall, including forming groove in brickwork	m	450
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**0,58mm ZT53 galvanised sheet steel in single lengths powder painted to match the colour of the roof sheeting poprivited to S10 bracket and installed all in accordance to the manufacturer's specifications:**

4	800mm Girth fascia flashing	m	284
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5	420mm Girth barge flashing	m	200
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#### **ROOF AND WALL INSULATION**

**"Aerolite" or similar approved double sided reflective foil laminate fire retardant thermal insulating membrane with a fire rating of B/B1/2/H&V-SP&USP tested in accordance with SANS 428 and installed all in accordance with the manufacturer's specifications:**

6	100mm thick insulation with an R value of 2.5 laid taut over trusses or rafters and fixed under purlins concurrent with roof covering including galvanised steel straining wires at 500mm centres (LI)	m2	3,511
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Section No. 2

Bill No. 5

Roof coverings

Prepared by:

Cepma Engineering Worx (Pty) Ltd

R

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

Section No. 2

Bill No. 5

Roof coverings

**COLLECTION**

Total Brought Forward from Page No.

Page  
No

Amount

102

103

104

105

106

Carried Forward to Summary of Section No. 2

R

Section No. 2

Bill No. 5

Roof coverings

Prepared by:

Cepma Engineering Worx (Pty) Ltd



Item No		Quantity	Rate	Amount
	<b><u>BILL NO. 6</u></b>			
	<b><u>CARPENTRY AND JOINERY</u></b>			
	<u>Descriptions and preambles:</u>			
	1. For preambles see "Standard Preambles to all Trades Rev 3 - DoH 2009"			
	2. Contractor is referred to Trades to follow hereafter for preambles and full descriptions of materials and items not fully described in this Trade and which shall apply equally to work in this Trade, unless otherwise described			
	<u>Trade Names and Proprietary Products:</u>			
	1. All descriptions or clauses where trade names or proprietary products are specified, are deemed to include the phrase "or other approved"			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	<u>Reference to drawings and project specification documentation:</u>			
	1. Contractors to make reference to drawings and project specification documentation that forms part of these Bills of Quantities for all installations and procedures required for the installation or execution of these works			
	<b>Carried to Collection</b>		R	
	Section No. 2			
	Bill No. 6			
	Carpentry & joinery			
	Prepared by:			
	Cepma Engineering Worx (Pty) Ltd			

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male & Female  
Inpatient & Outpatient Mental Health UnitMaterial samples:

1. Before commencement of any work, the contractor will be required to timeously supply a sample of the material to be used to the Principal Agent for approval at no cost
2. Material installed without prior approval from the Principal Agent will be removed at the contractor's cost

Carried to Collection

R

Section No. 2

Bill No. 6

Carpentry &amp; joinery

Prepared by:

Cepma Engineering Worx (Pty) Ltd

General:

1. All details and dimensions shown on the drawings are subject to confirmation on site and during construction. All dimensions and levels are to be confirmed on site before commencement of the works
2. All levels on structural drawings refer to the top of concrete, steel, etc. unless otherwise indicated
3. The Contractor is to comply at all times with all the relevant municipal regulations, conditions of approval and bylaws in the area of the site and is to ensure that a set of approved building plans is on site at all times
4. All specification documentation, drawings, etc. shall be available on site at all times
5. The Contractor shall at all times be fully responsible for quality control on site ensuring strict compliance with all drawings, details and specifications issued by the relevant design consultant. The Contractor shall submit a quality control plan for each portion of work prior to the commencement for acceptance. The works shall only commence on acceptance of the quality plan by the relevant design consultant
6. All products specified for use are to be used in strict accordance with the manufacturer's specifications and where applicable by an approved manufacturer's applicator or installer
7. Products different to those specified in the specification documentation shall only be used with prior approval of the relevant design consultant

Carried to Collection

R

Section No. 2

Bill No. 6

Carpentry &amp; joinery

Prepared by:

Cepma Engineering Worx (Pty) Ltd



Shop drawings:

1. Shop drawings are to be provided for all elements that are to be fabricated by the contractor's fabricator or supplier
2. All shop drawings are to be submitted to the relevant design consultant or Principal Agent for approval prior to the commencement of fabrication
3. Any fabricated elements installed without prior approval by the relevant design consultant or Principal Agent will be removed at the contractor's cost

Timber door frames

1. Rates for timber door frames shall be deemed inclusive of approved mild steel dowels into bottoms of frames and into concrete, and galvanized hoop iron cramps to sides of frames at 400mm centres and built into brickwork

Particle board:

1. Particle board shall comply with the following specifications:
  - 1.1. SANS 1300 Particle board: exterior and flooring type
  - 1.2. SANS 1301 Particle board: interior type

Fixing:

1. Items described as "nailed" shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete
2. Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 500mm centres and where described as "bolted" the bolts have been measured elsewhere

Carried to Collection

R

Section No. 2

Bill No. 6

Carpentry &amp; joinery

Prepared by:

Cepma Engineering Worx (Pty) Ltd

Samples:

1. A sample of any approved product must be delivered to site for sign off by the relevant design consultant or Principal Agent prior to commencement of the installation

**DOORS, ETC**

**Custom made solid hardwood panel doors with 3,2mm standard hardboard covering on both sides hung onto stainless steel pressed door frames (frames elsewhere measured):**

1	40mm Thick double door overall size. 1414 x 2032mm High door comprising of 2(No.) 707mm wide leaves (LI)	No	11
2	40mm Thick double door overall size. 1243 x 2032mm High door comprising of 2(No.) uneven leaves size. 829mm wide and other 414mm wide (LI)	No	3
3	40mm Thick x 1200 x 2032mm High Single door (LI)	No	7
4	40mm Thick x 1000 x 2032mm High Single door (LI)	No	31
5	40mm Thick x 813 x 2032mm High Single door (LI)	No	98
6	40mm Thick x 662 x 1800mm High Single door (LI)	No	9
7	40mm Thick x 512 x 1800mm High Single door (LI)	No	28

**SANS approved Class A fire doors hung on approved stainless steel hinges and supplied complete on stainless steel frames to suite 230mm walls and installed all in accordance with the manufacturer's specifications:**

8	Double door overall size. 1330 x 2100mm high comprising of 2(No.) uneven door leaves size. 829 x 2032mm high and 414 x 2032mm high (LI)	No	3
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Carried to Collection

R

Section No. 2

Bill No. 6

Carpentry &amp; joinery

Prepared by:

Cepma Engineering Worx (Pty) Ltd

9	Single door overall size. 1087 x 2100mm high comprising of 1000 x 2032mm high door leaf with 1(No.) 450 x 150 x 9mm thick toughened safety glass viewing window (LI)	No	23
	<b><u>SANS approved Class B fire doors hung on approved stainless steel hinges and supplied complete on stainless steel frames to suite 230mm walls and installed all in accordance with the manufacturer's specifications:</u></b>		
10	Single door overall size. 900 x 2100mm high comprising of 813 x 2032mm high door leaf (LI)	No	9
	<b><u>FRAMED FRAMES, ETC.</u></b>		
	<b><u>Saligna hardwood timber:</u></b>		
11	100 x 44mm frame plugged and screwed to walls (LI)	m	157
	<b><u>BUMP RAILS, ETC.</u></b>		
12	30 x 300mm Laminated Saligna bump rails with bullnose finish fixed on to wall by 95mm x 15mm meranti wood spacers all in accordance with the Architects specifications (LI)	m	33
	<b><u>THE FOLLOWING IN PINNING BOARDS</u></b>		
	<b><u>Tempered hardboard:</u></b>		
13	3mm Backboards plugged and screwed to walls at edges with brass screws and cup washers at 450mm centres	m2	117
	<b><u>19mm Softboard:</u></b>		
14	Pinning board fixed to walls with an approved adhesive (timber surround elsewhere measured)	m2	117

Carried to Collection

R

Section No. 2

Bill No. 6

Carpentry &amp; joinery

Prepared by:

Cepma Engineering Worx (Pty) Ltd



FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

Wrot meranti:

- 15 38 x 70mm Once rebated and arris rounded pinning board surround with mitred corners, plugged and screwed to walls with countersunk brass screws and cupped washers

m

468

Carried to Collection

R

Section No. 2

Bill No. 6

Carpentry &amp; joinery

Prepared by:

Cepma Engineering Worx (Pty) Ltd

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

Section No. 2

Bill No. 6

Carpentry &amp; joinery

**COLLECTION**

Total Brought Forward from Page No.

Page  
No

Amount

108

109

110

111

112

113

114

Carried Forward to Summary of Section No. 2

R

Section No. 2

Bill No. 6

Carpentry &amp; joinery

Prepared by:

Cepma Engineering Worx (Pty) Ltd

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

Item  
No

Quantity Rate Amount

**BILL NO. 7****FLOOR COVERINGS, PLASTIC LININGS,  
ETC.**Descriptions and preambles:

1. For preambles see "Standard Preambles to all Trades Rev 3 - DoH 2009"
2. Contractor is referred to Trades to follow hereafter for preambles and full descriptions of materials and items not fully described in this Trade and which shall apply equally to work in this Trade, unless otherwise described

Trade Names and Proprietary Products:

1. All descriptions or clauses where trade names or proprietary products are specified, are deemed to include the phrase "or other approved"

**SUPPLEMENTARY PREAMBLES**Reference to drawings and project specification documentation:

1. Contractors to make reference to drawings and project specification documentation that forms part of these Bills of Quantities for all installations and procedures required for the installation or execution of these works

Carried to Collection

R

Section No. 2

Bill No. 7

Floor coverings, wall linings, etc.

Prepared by:

Cepma Engineering Worx (Pty) Ltd



FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

Material samples:

1. Before commencement of any work, the contractor will be required to timeously supply a sample of the material to be used to the Principal Agent for approval at no cost
2. Material installed without prior approval from the Principal Agent will be removed at the contractor's cost

Carried to Collection

R

Section No. 2

Bill No. 7

Floor coverings, wall linings, etc.

Prepared by:

Cepma Engineering Worx (Pty) Ltd

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

General:

1. All details and dimensions shown on the drawings are subject to confirmation on site and during construction. All dimensions and levels are to be confirmed on site before commencement of the works
2. All levels on structural drawings refer to the top of concrete, steel, etc. unless otherwise indicated
3. The Contractor is to comply at all times with all the relevant municipal regulations, conditions of approval and bylaws in the area of the site and is to ensure that a set of approved building plans is on site at all times
4. All specification documentation, drawings, etc. shall be available on site at all times
5. The Contractor shall at all times be fully responsible for quality control on site ensuring strict compliance with all drawings, details and specifications issued by the relevant design consultant. The Contractor shall submit a quality control plan for each portion of work prior to the commencement for acceptance. The works shall only commence on acceptance of the quality plan by the relevant design consultant
6. All products specified for use are to be used in strict accordance with the manufacturer's specifications and where applicable by an approved manufacturer's applicator or installer
7. Products different to those specified in the specification documentation shall only be used with prior approval of the relevant design consultant

Carried to Collection

R

Section No. 2

Bill No. 7

Floor coverings, wall linings, etc.

Prepared by:

Cepma Engineering Worx (Pty) Ltd

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

Specialists:

1. The floor coverings, plastic linings, etc. are to be laid by an approved firm of Specialists, who shall inspect, approve and accept the screeds, etc., before beginning with the work
2. All screeds are to be a minimum of Class 1

Samples:

1. A sample of any approved product must be delivered to site for sign off by the relevant design consultant or Principal Agent prior to commencement of the installation

**FLOOR COVERINGS**

**2.5mm Thick "Polyflor Palettone PUR" or similar approved fully flexible PVC sheet flooring with monolayer and homogeneous construction non-directional design "PUR" reinforced with welded joints fully bonded and installed all in accordance with the manufacturer's specifications:**

1	On floors	m2	2,541
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**SKIRTINGS, NOSINGS, ETC**

**2.5mm Thick "Polyflor Palettone PUR" or similar approved fully flexible PVC sheet flooring with monolayer and homogeneous construction non-directional design "PUR" reinforced with welded joints fully bonded and installed all in accordance with the manufacturer's specifications:**

2	To coves to a height of 150mm and a girth of 450mm fitted on a "PC20" or similar approved cove former with a "CS48" capping strip ( measured elsewhere)	m	2,290
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Carried to Collection

R

Section No. 2

Bill No. 7

Floor coverings, wall linings, etc.

Prepared by:

Cepma Engineering Worx (Pty) Ltd



3	To coves to a height of 150mm and a girth of 250mm fitted on a "PC20" or similar approved cove former with a "CS48" capping strip ( measured elsewhere)	m	5		
	<b><u>"Polyfor PC20" or similar approved cove fillet:</u></b>				
4	To wall and floor junction	m	2,301		
	<b><u>"Polyflor CS48" or similar approved capping strip:</u></b>				
5	To plastered and primed walls	m	2,301		
	<b><u>"Genesis" PVC self adhesive cover strips installed in accordance with the manufacturer's specifications:</u></b>				
6	60 x 3mm Code CIA606 PVC cover strip welded on both sides	m	170		
	<b><u>MOISTURE BARRIER</u></b>				
	<b><u>Apply one coat "TAL VAPORSTOP" or similar approved water based two part epoxy sealer at a spread rate of 3m<sup>2</sup>/1t, apply a second coat of "TAL VAPORSTOP" at a coverage of 4m<sup>2</sup>/1t within 24 hours and fully blind off the wet "TAL VAPORSTOP" surface with "TAL AGGREGATE 2® " sand at a coverage of 2.5kg per m<sup>2</sup> and allow to dry for 24hrs, all in strict accordance with manufacturers specifications to ensure issuing of full warranty:</u></b>				
7	Moisture barrier applied onto floated floors	m <sup>2</sup>	2,884		
	<b><u>POLISH, SEALERS, ETC.</u></b>				
	<b><u>Sealing of vinyl seating all inaccordance with the manufacturer's specifications:</u></b>				
8	Strip with ammonia based stripper and seal vinyl flooring with 3 coats polyurethane sealer	m <sup>2</sup>	2,887		

**ARTIFICIAL GRASS**

Carried to Collection

R

Section No. 2

Bill No. 7

Floor coverings, wall linings, etc.

Prepared by:

Cepma Engineering Worx (Pty) Ltd

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

38mm thick "Easigrass - Windsor" or similar  
approved artificial grassing laid on concrete floors  
supplied and installed all inaccordance with the  
manufacturer's specifications:

9	On concrete floors	m2	241
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Carried to Collection

R

Section No. 2

Bill No. 7

Floor coverings, wall linings, etc.

Prepared by:

Cepma Engineering Worx (Pty) Ltd

Section No. 2

Bill No. 7

Floor coverings, wall linings, etc.

**COLLECTION**

Total Brought Forward from Page No.

Page  
No

Amount

116

117

118

119

120

121

Carried Forward to Summary of Section No. 2

R

Section No. 2

Bill No. 7

Floor coverings, wall linings, etc.

Prepared by:

Cepma Engineering Worx (Pty) Ltd



Item  
No

Quantity

Rate

Amount

**BILL NO. 8****IRONMONGERY**Descriptions and preambles:

1. For preambles see "Standard Preambles to all Trades Rev 3 - DoH 2009"
2. Contractor is referred to Trades to follow hereafter for preambles and full descriptions of materials and items not fully described in this Trade and which shall apply equally to work in this Trade, unless otherwise described

Trade Names and Proprietary Products:

1. All descriptions or clauses where trade names or proprietary products are specified, are deemed to include the phrase "or other approved"

**SUPPLEMENTARY PREAMBLES**Reference to drawings and project specification documentation:

1. Contractors to make reference to drawings and project specification documentation that forms part of these Bills of Quantities for all installations and procedures required for the installation or execution of these works

Carried to Collection

R

Section No. 2

Bill No. 8

Ironmongery

Prepared by:

Cepma Engineering Worx (Pty) Ltd

Material samples:

1. Before commencement of any work, the contractor will be required to timeously supply a sample of the material to be used to the Principal Agent for approval at no cost
2. Material installed without prior approval from the Principal Agent will be removed at the contractor's cost

Carried to Collection

R

Section No. 2

Bill No. 8

Ironmongery

Prepared by:

Cepma Engineering Worx (Pty) Ltd

General:

1. All details and dimensions shown on the drawings are subject to confirmation on site and during construction. All dimensions and levels are to be confirmed on site before commencement of the works
2. All levels on structural drawings refer to the top of concrete, steel, etc. unless otherwise indicated
3. The Contractor is to comply at all times with all the relevant municipal regulations, conditions of approval and bylaws in the area of the site and is to ensure that a set of approved building plans is on site at all times
4. All specification documentation, drawings, etc. shall be available on site at all times
5. The Contractor shall at all times be fully responsible for quality control on site ensuring strict compliance with all drawings, details and specifications issued by the relevant design consultant. The Contractor shall submit a quality control plan for each portion of work prior to the commencement for acceptance. The works shall only commence on acceptance of the quality plan by the relevant design consultant
6. All products specified for use are to be used in strict accordance with the manufacturer's specifications and where applicable by an approved manufacturer's applicator or installer
7. Products different to those specified in the specification documentation shall only be used with prior approval of the relevant design consultant

Fixing:

1. All fixing as per Architect's specifications
2. Screws, bolts, etc. for fixing of ironmongery shall be

Carried to Collection

R

Section No. 2

Bill No. 8

Ironmongery

Prepared by:

Cepma Engineering Worx (Pty) Ltd



matching metal and finish, except for aluminium ironmongery or ironmongery fixed to aluminium in which case, stainless steel screws must be used

#### Abbreviations, finishes and descriptions:

The following abbreviations stand for:

1. BT - Bolt through
2. BTB - Back to back
3. SSS - Satin nickel plated
4. SNP - Satin nickel plated
5. MK - Masterkey
6. GMK - Grand masterkey
7. K/PL - Kick plate
8. P/PL - Push plate
9. S/S - Stainless steel
10. N/S - Narrow style
11. DW - Door width
12. CW - Complete with
13. CWAS - Complete with all screws
14. CSK - Countersunk
15. CYL - Cylinder
16. H/O - Hold open
17. SQ - Square
18. RND - Round
19. PB - Polished
20. DBL - Double
21. D/A - Delayed action
22. OS - Offset
23. RH - Right hand
24. LH - Left hand
25. N/PL - Nickel plated
26. P/H - Pull handle
27. DD - Double door
28. SLD - Sliding
29. STL - Steel
30. ISM - Integrated mechanical closing sequence control
31. E-ISM - Integrated mechanical closing sequence control and electro-mechanical hold open

Carried to Collection

R

Section No. 2

Bill No. 8

Ironmongery

Prepared by:

Cepma Engineering Worx (Pty) Ltd

<u>Samples:</u>				
1. A sample of any approved product must be delivered to site for sign off by the relevant design consultant or Principal Agent prior to commencement of the installation				
<b><u>HINGES, BOLTS, ETC</u></b>				
<b><u>"Geza" or similar approved hinges:</u></b>				
1	Ref. 096/76/SS size. 100x75x3mm S/S 4 ball bearing butt hinge (LI)	No	74	
<b><u>Brass:</u></b>				
2	70mm Long Brass cabin hook (B1293) and eye complete with 200 x 114 x 38mm thick SA pine base mounted onto wall with 13 x 100mm expansion Bolts (2 No) (LI)	No	110	
<b><u>"EN-SUITE" LOCKS</u></b>				
The following locks are to be suitable for master and grand master key operation				
<b><u>"Geza" or similar approved:</u></b>				
3	Ref. IG950933338M N/PL DBL CYL 66mm Master key GMK	No	32	
4	Ref. IG950933108M N/PL SNGL CYL 43mm Master key GMK	No	142	
5	Ref. 730/68 Euro profile CYL sashlock S/S 76mm	No	22	
6	Ref. 742/68 Euro profile CYL deadlock S/S 76mm	No	13	
7	Ref. 662/35 Deadlock Euro CYL with roller bolt N/S S/S 35mm	No	137	
<b>Carried to Collection</b>				R
Section No. 2				
Bill No. 8				
Ironmongery				
<b>Prepared by:</b>				
<b>Cepma Engineering Worx (Pty) Ltd</b>				

8	Ref. 661/32 adjustable roller catch S/S	No	37
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**HANDLES, PULLS, ETC.****"Geza" or similar approved handles, pulls, escutcheons, etc.:**

9	Ref. ED101W69/L Daytona lever 160x160x1.6mm WC indicator LH S/S B/PL	No	17
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10	Ref. 075/160/B Pull handle on 160x160x1.6mm Blank S/S	No	20
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11	Ref. ED908/CYL Profile cylinder escutcheon S/SS	No	139
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12	Ref. 295/01 Helping hand L/H or RH indicator bolt	No	9
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13	Ref. HA2940SR Single panic bolt C/W shoots	No	5
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14	Ref. HA3040SR exit alarm for door	No	5
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15	Ref. JDC215/350 BTB S/S Pull handle 375x350x25mm	No	228
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16	Ref. JDC215/350 BTB S/S Pull handle 375x350x25mm on 375x375x1.6mm Blank S/S	No	62
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17	Ref. EDD104C069 Sanford 19mm L/ON Rose C/W CYL ESC	No	34
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18	Ref. 120/150 Flushbolt 150mm ST/C	No	34
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**DOOR CLOSERS****"Geza" or similar approved door closers:**

19	Ref. AZ5003SR TS5000 door closer with guide rail SR complete with ND0501 patent fix screws M5	No	6
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20	Ref. AZ4001DA 4000P/DA/SE O.H door closer with delayed closing W/SOFIT bracket complete with ND0501 patent fix screws M5	No	22
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R

Section No. 2

Bill No. 8

Ironmongery

Prepared by:

Cepma Engineering Worx (Pty) Ltd



21	Ref. AZ3003SR TS3000 door closer with guide rail SR complete with ND0501 patent fix screws M5	No	104
22	Door closer comprising of 1(No.) Ref. AB5002SR TS5000 L body only, 1(No.) Ref. AC3000SR TS 3000/TS 5000 G/RAIL hinge side silver, 1(No.) Ref. AC3001SR TS 3000/TS 5000L OPP hinge BRA.SILVER and complete with Ref. ND0501 Patent fix screws M5 for door closers	No	25

**WEATHER BARS****Galvanised steel section weather bars (Provisional):**

23	40 x 40 x 5mm Galvanised steel angle section weather bar complete with split anchors at 350mm centres cast into concrete or masonry all in accordance with the Architects details as shown on drawing Ref No. WD-XX-9023 - Typical stair nosing	m	168
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**SUNDRIES****"Geze" or similar approved installed all in accordance with the manufacturer's specifications:**

24	Ref. 140/69 Stainless steel floor mounted door stop	No	273
25	44mm Diameter x 82mm high Stainless steel wall mounted projection door stop complete with rubber buffer plugged into concrete or masonry using 50mm long stainless steel screws. (Manufactured from Grade 304 Steel)	No	2
26	Regular duty hydraulic floor spring with hold open option and stainless steel cover plate.	No	16

**KEY TAGS**

27	40mm Diameter x 3mm thick clear perspex key tag with black 'Duco' spray painted background with four 7mm high engraved and white painted Helvetica Medium numerals and letters, holed for and fitted with 22mm diameter split key ring (Provisional)	No	200
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Carried to Collection

R

Section No. 2

Bill No. 8

Ironmongery

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Cepma Engineering Worx (Pty) Ltd

**WHITE BOARDS**

"Parrot" or similar approved vitreous enamelled mild steel magnetic white board with semi-gloss finish on writing surface suitable for fibre tipped white board marker pens with the surface laminated to a suitable particle board core having a suitable balancing backer to rear with the entire unit beaded all round with a natural anodised aluminium channel surround mitred at corners supplied complete with pen rail and all necessary accessories and installed all in accordance with the manufacturer's specifications:

28	White board size. 1500mm x 900mm high complete with pen rail and fixing to walls	No	16
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**BATHROOM FITTINGS**

"Franke" or similar approved stainless steel bathroom fittings supplied complete with stainless steel screws, fastener's etc. and installed in accordance with the manufacturer's specifications:

All stainless steel to be Grade 304 (18/10)

29	M600 HD mirror size. 600mm x 500mm x 8mm thick with a reflective polished surface complete with concealed thief resistant fittings plugged into walls	No	32
30	M500 HD mirror size. 500mm x 500mm x 8mm thick with a reflective polished surface complete with concealed thief resistant fittings plugged into walls	No	20
31	RODX 672 wall hung double toilet roll holder size. 144mm x 301mm x 138mm with a satin finish installed complete with stainless steel screws	No	19
32	Recessed type toilet roll holder code. 2120037 118mm diameter x 110mm long supplied and installed complete with all necessary accessories	No	23
33	Soap/disinfectant model HSD elbow hand sanitiser to suit 500mm refillable bottle	No	36

Carried to Collection

R

Section No. 2

Bill No. 8

Ironmongery

Prepared by:

Cepma Engineering Worx (Pty) Ltd



34	100 x 134 x 304 x 1,2mm Thick Satin finished wall mounted soap dispenser with a replaceable and refillable 1 litre container suitable for liquid and antiseptic soaps or lotions complete with cylinder lock	No	50
35	STRX600 wall hung paper towel dispenser size.300mm x 134mm x 304mm with a satin finish installed complete with stainless steel screws	No	86
36	Wall mounted satin finished waste container with a material thickness of 0.8mm, fully welded body, stainless steel lid with piano hinge, size 290 x 200 x 610mm high	No	86
37	Fold down shower seat size. 484 x 526 Ref. CNTX400A with white battens made from polyethylene ref. CNTX400A	No	15
38	280 x 175 x 500 x 1,2mm Thick Wall hung sanitary towel bin comprising of a double lid with a capacity of 25 litres	No	26
39	32mm x 1.2mm thick Diameter shower rail plugged into wall complete with all fixtures	m	9

**PARAPLEGIC RAILS**

**"Franke" or similar approved stainless steel paraplegic grab rails supplied complete with stainless steel screws, brackets, etc. and installed in accordance with the manufacturer's specifications:**

All stainless steel to be Grade 304 (18/10)

40	CNTX70 B Fold down paraplegic grab rail 32mm x 1.2mm thick Diameter for wall mounting	No	5
41	CNTX21 415mm x 415mm x 32mm x 1.2mm thick Diameter 90 Degree angle grab rail for wall mounting	No	5
42	CNTX52 750mm long x 32mm x 1.2mm thick Diameter horizontal corner grab rail for wall mounting	No	25

**Carried to Collection**

R

Section No. 2

Bill No. 8

Ironmongery

Prepared by:

Cepma Engineering Worx (Pty) Ltd



43	CNTX750 750mm long x 32mm x 1.2mm thick Diameter straight grab rail for wall mounting	No	20		
<b><u>PUSH PLATES AND KICKING PLATES</u></b>					
<b><u>"Geze" or similar approved custom made 1,2mm thick stainless steel cladding installed all in accordance with the manufacturer's specifications:</u></b>					
44	Kick plate size. 1200mm long x 2032mm high	No	11		
45	Kick plate size. 1200mm long x 1850mm high	No	3		
46	Kick plate size. 1000mm long x 2032mm high with provision made for view panel size. 150mm long x 450mm high	No	46		
47	Kick plate size. 1000mm long x 2032mm high	No	34		
48	Kick plate size. 1000mm long x 300mm high	No	20		
49	Kick plate size. 829mm long x 2032mm high	No	4		
50	Kick plate size. 829mm long x 300mm high	No	8		
51	Kick plate size. 813mm long x 2032mm high	No	50		
52	Kick plate size. 813mm long x 1850mm high	No	8		
53	Kick plate size. 813mm long x 300mm high	No	164		
54	Kick plate size. 707mm long x 1850mm high	No	36		
55	Kick plate size. 707mm long x 350mm high	No	8		
56	Kick plate size. 707mm long x 300mm high	No	8		
57	Kick plate size. 512mm long x 1800mm high	No	36		
58	Kick plate size. 414mm long x 2032mm high	No	4		
59	Kick plate size. 414mm long x 300mm high	No	8		
<b>Carried to Collection</b>				R	
Section No. 2					
Bill No. 8					
Ironmongery					
Prepared by:					
Cepma Engineering Worx (Pty) Ltd					

**STEEL LOCKERS, CUPBOARDS, ETC.**

- 60 Powder coated mild steel locker, 300mm wide x 450mm deep x 1800mm high, forming two lockers, each fitted with adjustable shelf and vented door with latch and including 25mm Viro padlock and keys and bolt to wall with eight 8mm expansion bolts

No 4

**STEEL SHELVING**

**Complete supply and installation of adjustable powder coated shelving units all in accordance with the Architect's drawings and specifications:**

- 61 914mm long x 605mm wide x 1829mm high Shelving unit comprising of 5(No.) shelving compartments

No 20

- 62 914mm long x 457mm wide x 1829mm high Shelving unit comprising of 5(No.) shelving compartments

No 27

Melamine backing boards:

- 63 16mm Thick melamine backing board bolted onto walls

m2 8

**STAINLESS STEEL CATERING TABLES**

**The following in custom made grade 304 (18/10) 1,2mm gauge stainless steel construction supplied complete and including anchor bolts into concrete or brickwork all in accordance with the manufacturer's specifications:**

- 64 2000mm long x 650mm wide x 900mm high catering table with integral 150mm splash back supplied and installed complete with solid under shelf

No 6

- 65 1500mm long x 650mm wide x 900mm high catering table with integral 150mm splash back supplied and installed complete with solid under shelf

No 1

- 66 2000mm long x 450mm wide x 900mm high catering table with integral 150mm splash back supplied and installed complete with solid under shelf

No 5

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R

Section No. 2

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67	1500mm long x 450mm wide x 900mm high catering table with integral 150mm splash back supplied and installed complete with solid under shelf	No	1
<b><u>PSYCHIATRIC WARD FURNITURE</u></b>			
<b><u>"Cranium SA" or similar approved bolted or weighed down psychiatric ward furniture supplied and installed all in accordance with the manufacturer's specifications:</u></b>			
68	Resting dining chair size. 722mm long x 738mm deep x 777mm high	No	76
69	4 Seat dining table overall size. 900mm diameter x 832mm high	No	11
70	Roto moulded table base size. 1200mm diameter x 832mm high with compact laminate top	No	12
71	Roto moulded table base size. 900mm diameter x 832mm high with compact laminate top	No	9
72	Bed and mattress combo without restraints overall size. 2020mm long x 1020mm wide x 460mm high	No	20
73	Bed and mattress combo with restraints overall size. 2020mm long x 1020mm wide x 460mm high	No	10
74	Wall mounted desk size. 900mm long x 450mm deep x 380mm high	No	20
75	Wardrobe with double doors size. 1200mm long x 560mm deep x 1890mm high	No	13
76	Bedside locker - 3 tier size. 400mm long x 480mm deep x 875mm high	No	30
77	Anti-ligature wall hook (Metal)	No	50
78	Stool size. 472mm diameter x 418mm high	No	20

**VERTICAL BLINDS, CURTAIN TRACKS, ETC**

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FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

"Decorland" or similar approved custom made  
127mm wide fabric vertical blinds including surface  
mounting to brickwork or concrete in accordance  
with the manufacturer's specifications:

79	Blinds to suite window size. 1200 x 1400mm high	No	28
----	---	----	----

80	Blinds to suite window size. 1600 x 1400mm high	No	1
----	---	----	---

Approved heavy duty aluminium powdercoated  
curtain trucks plugged on walls and installed all  
in accordance with the manufacturer's  
specifications:

81	Hospital cubicle curtain tracks 100mm below soffit of ceiling including 12 gliders per metre, hangers, brackets, stopped ends, etc. plugged into concrete soffit	m	47
----	--	---	----

82	Double curtain tracks for face fixing with 50mm projection including 12 rollers per metre, hangers, brackets, stopped ends, etc. plugged into concrete soffit	m	32
----	---	---	----

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Section No. 2

Bill No. 8

Ironmongery

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FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

Section No. 2

Bill No. 8

Ironmongery

**COLLECTION**

Total Brought Forward from Page No.

Page  
No

Amount

123

124

125

126

127

128

129

130

131

132

133

134

135

Carried Forward to Summary of Section No. 2

R

Section No. 2

Bill No. 8

Ironmongery

Prepared by:

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Item  
No

Quantity

Rate

Amount

**BILL NO. 9****STRUCTURAL STEELWORK  
(PROVISIONAL)**Descriptions and preambles:

1. For preambles see "Standard Preambles to all Trades Rev 3 - DoH 2009"
2. Contractor is referred to Trades to follow hereafter for preambles and full descriptions of materials and items not fully described in this Trade and which shall apply equally to work in this Trade, unless otherwise described

Trade Names and Proprietary Products:

1. All descriptions or clauses where trade names or proprietary products are specified, are deemed to include the phrase "or other approved"

**SUPPLEMENTARY PREAMBLES**Reference to drawings and project specification documentation:

1. Contractors to make reference to drawings and project specification documentation that forms part of these Bills of Quantities for all installations and procedures required for the installation or execution of these works

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Section No. 2

Bill No. 9

Structural steelwork

Prepared by:

Cepma Engineering Worx (Pty) Ltd



FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male & Female  
Inpatient & Outpatient Mental Health UnitMaterial samples:

1. Before commencement of any work, the contractor will be required to timeously supply a sample of the material to be used to the Principal Agent for approval at no cost
2. Material installed without prior approval from the Principal Agent will be removed at the contractor's cost

Carried to Collection

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Section No. 2

Bill No. 9

Structural steelwork

Prepared by:

Cepma Engineering Worx (Pty) Ltd

General:

1. All details and dimensions shown on the drawings are subject to confirmation on site and during construction. All dimensions and levels are to be confirmed on site before commencement of the works
2. All levels on structural drawings refer to the top of concrete, steel, etc. unless otherwise indicated
3. The Contractor is to comply at all times with all the relevant municipal regulations, conditions of approval and bylaws in the area of the site and is to ensure that a set of approved building plans is on site at all times
4. All specification documentation, drawings, etc. shall be available on site at all times
5. The Contractor shall at all times be fully responsible for quality control on site ensuring strict compliance with all drawings, details and specifications issued by the relevant design consultant. The Contractor shall submit a quality control plan for each portion of work prior to the commencement for acceptance. The works shall only commence on acceptance of the quality plan by the relevant design consultant
6. All products specified for use are to be used in strict accordance with the manufacturer's specifications and where applicable by an approved manufacturer's applicator or installer
7. Products different to those specified in the specification documentation shall only be used with prior approval of the relevant design consultant

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R

Section No. 2

Bill No. 9

Structural steelwork

Prepared by:

Cepma Engineering Worx (Pty) Ltd

Shop drawings:

1. Shop drawings are to be provided for all elements that are to be fabricated by the contractor's fabricator or supplier
2. All shop drawings are to be submitted to the relevant design consultant or Principal Agent for approval prior to the commencement of fabrication
3. Any fabricated elements installed without prior approval by the relevant design consultant or Principal Agent will be removed at the contractor's cost

Structural steelwork:

1. All structural steelwork shall be fabricated and erected in accordance with SANS 2001-CSI
2. Welded shall conform to SANS 0167 - 1984 and 044 specifications
3. Where no weld sizes are shown, the minimum weld size shall be that of the thickest plate of the connection plates/elements and shall be able to transfer the full force that can be developed in connected members through the connection. Minimum 6mm fillet welds to be used
4. When using electric arc welding, all electrodes shall be E7018. For any other welding process, the contractor shall apply in writing for the approval from the responsible Engineer for the electrodes to be used
5. All butt welds shall develop the full strength of the elements joined
6. All splices shall develop the full strength of the elements joined
7. Welding shall only be performed by coded welders
8. Site welding shall only be permitted if:

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Section No. 2

Bill No. 9

Structural steelwork

**Prepared by:****Cepma Engineering Worx (Pty) Ltd**

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- |      |   |  |  |  |
|------|---|--|--|--|
| 8.1. | Procedure/quality plan has been approved by the Engineer  |  |  |  |
| 8.2. | Work is done by experienced welders using proper equipment in a condition good  |  |  |  |
| 9.   | The Contractor shall design all welds and where necessary gussets of sufficient strength shall be provided to obtain the required weld length to ensure the full strength of the connection   |  |  |  |
| 10.  | All hot rolled and hollow section structural steelwork shall be Grade S355JR except cold-formed open steel sections which shall have a minimum yield stress of 240Mpa. Tensile strength testing results must be provided for each batch of steel from which cold-formed section are sourced |  |  |  |
| 11.  | A certificate from the steel manufacturer in which the grade of the structural steel is verified shall be submitted to the structural Engineer for acceptance   |  |  |  |
| 12.  | All structural bolts shall be Grade 8.8 unless indicated otherwise  |  |  |  |
| 13.  | Where temporary bracing or propping is required, the contractor shall be responsible for the design, erection, maintenance and removal (where necessary) of such supports   |  |  |  |
| 14.  | If splices in trusses are required due to transport, proposals of this shall be submitted to the structural Engineer for acceptance   |  |  |  |
| 15.  | The shop drawer and fabricator shall ensure that centres of gravity of members intersect at node points except where eccentricities are specified on the Structural Engineer's drawings   |  |  |  |
| 16.  | The fabricator shall supply a full itemised quality plan for the welding as well as a weld procedure specification and current welder qualification papers for each procedure   |  |  |  |

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R

Section No. 2

Bill No. 9

Structural steelwork

Prepared by:

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17. Where applicable, cementitious non-shrink structural grout shall be provided under base plates before any primary loads are applied to the structure
18. Where HSFQ bolts are specified, the following shall apply:
- 18.1. All contact surfaces at HSFQ bolt splices shall be free from oil, grease, rust, scale, paint or any other impurities at time of bolting
- 18.2. The tightening of high strength friction-grip bolts shall be done according to the Turn-of-The-Nut method as specified in clause 5.3.1(A) of SANS 094-1982
19. Where HSFQ bolts have been specified, the contractor shall use "Coronet" type load indicating washers in conjunction with such bolts
20. Where slotted holes for bolts occur, the nut shall be hand tightened and a lock-nut be provided unless noted otherwise
21. The contractor shall submit his steel erection and work plan to the Engineer and OHS officer for approval prior to erecting steelwork on site
22. For shop drawings, the Engineer will require 3 weeks for acceptance of the drawing hence contractor to plan properly
23. The contractor shall not erect any galvanised structural steel that has been damaged in any way without prior approval of the Engineer
24. The contractor is to submit a specification and request approval for the repair of any damage galvanising prior to repairing of such
25. External galvanised structural steel to receive a duplex paint coating as per the following general specifications:

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R

Section No. 2

Bill No. 9

Structural steelwork

Prepared by:

Cepma Engineering Worx (Pty) Ltd

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male & Female  
Inpatient & Outpatient Mental Health Unit

25.1. Clean and degrease the galvanised steel with a suitable cleaner

25.2. Apply one coat of epoxy primer to DFT - 80um

25.3. Apply two coats of polyurethane top coat to DFT - 40um (colour to client's specifications)

25.4. Applicator to submit final specifications to structural and Fire Engineer for approval

Corrosion protection:

1. All steelwork (including bolts) to be hot dipped galvanised to the applicable SANS specification and technical publications and recommendations of the hot dip galvanising association of South Africa which include:

- SANS 121/ISO 1461
- SANS 32/EN 10240
- SANS 14713/ISO 14713
- SANS 4998/ISO 4998
- SANS 3575/ISO 3575.

Samples:

1. A sample of any approved product must be delivered to site for sign off by the relevant design consultant or Principal Agent prior to commencement of the installation

**STRUCTURAL STEELWORK**

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Section No. 2

Bill No. 9

Structural steelwork

Prepared by:

Cepma Engineering Worx (Pty) Ltd

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FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

**Galvanised mild steel structural steel components manufactured and erected to Engineer's details and specifications:**

- |   |  |    |        |
|---|--|----|--------|
| 1 | Manufacture, supply and install on site all structural steel roof components including columns, tie beams, rafters, struts and braces, channel sections and angle sections, purlins, base plates, flat and angled cleats, bolts, etc. all in accordance with the Engineer's specifications | kg | 42,062 |
| 2 | Manufacture, supply and install on site all structural steel walkways columns complete with bases, bolts, etc. all in accordance with the Engineer's specifications  | kg | 515    |

**NON-SHRINK GROUT:**

- |   |  |    |    |
|---|--|----|----|
| 3 | 30mm non-shrink grout installed all in accordance with the Engineer's specifications | m2 | 14 |
|---|--|----|----|

**FIRE PROOFING OF STEEL STRUCTURES**

**The following in application of intumescent paint to structural steel members in order to provide a 2 hour fire rating all in accordance with the Engineer's specifications:**

- |   |   |      |       |
|---|---|------|-------|
| 4 | Prepare surface areas for primer application by removing any dust, impurities, etc.   | m    | 1,550 |
| 5 | Supply and application of one coat of "Pilot QD" or similar approved one-component oxidatively drying alkyd primer with zinc phosphate to structural steel elements | m    | 1,550 |
| 6 | Prepare surface areas for intumescent paint application by removing any dust, impurities, etc.  | m    | 1,550 |
| 7 | Supply and application of 2 coats of intumescent paint to structural steel members  | m    | 1,550 |
| 8 | Masking and protection of steel components during the galvanising process   | Item |       |

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R

Section No. 2

Bill No. 9

Structural steelwork

Prepared by:

Cepma Engineering Worx (Pty) Ltd

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male & Female  
Inpatient & Outpatient Mental Health Unit

Section No. 2

Bill No. 9

Structural steelwork

**COLLECTION**

Total Brought Forward from Page No.

Page  
No

Amount

137

138

139

140

141

142

143

144

Carried Forward to Summary of Section No. 2

R

Section No. 2

Bill No. 9

Structural steelwork

Prepared by:

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Item  
No

Quantity

Rate

Amount

**BILL NO. 10****METALWORK**Descriptions and preambles:

1. For preambles see "Standard Preambles to all Trades Rev 3 - DoH 2009"
2. Contractor is referred to Trades to follow hereafter for preambles and full descriptions of materials and items not fully described in this Trade and which shall apply equally to work in this Trade, unless otherwise described

Trade Names and Proprietary Products:

1. All descriptions or clauses where trade names or proprietary products are specified, are deemed to include the phrase "or other approved"

**SUPPLEMENTARY PREAMBLES**Reference to drawings and project specification documentation:

1. Contractors to make reference to drawings and project specification documentation that forms part of these Bills of Quantities for all installations and procedures required for the installation or execution of these works

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R

Section No. 2

Bill No. 10

Metalwork

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Material samples:

1. Before commencement of any work, the contractor will be required to timeously supply a sample of the material to be used to the Principal Agent for approval at no cost
2. Material installed without prior approval from the Principal Agent will be removed at the contractor's cost

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R

Section No. 2

Bill No. 10

Metalwork

Prepared by:

Cepma Engineering Worx (Pty) Ltd

General:

1. All details and dimensions shown on the drawings are subject to confirmation on site and during construction. All dimensions and levels are to be confirmed on site before commencement of the works
2. All levels on structural drawings refer to the top of concrete, steel, etc. unless otherwise indicated
3. The Contractor is to comply at all times with all the relevant municipal regulations, conditions of approval and bylaws in the area of the site and is to ensure that a set of approved building plans is on site at all times
4. All specification documentation, drawings, etc. shall be available on site at all times
5. The Contractor shall at all times be fully responsible for quality control on site ensuring strict compliance with all drawings, details and specifications issued by the relevant design consultant. The Contractor shall submit a quality control plan for each portion of work prior to the commencement for acceptance. The works shall only commence on acceptance of the quality plan by the relevant design consultant
6. All products specified for use are to be used in strict accordance with the manufacturer's specifications and where applicable by an approved manufacturer's applicator or installer
7. Products different to those specified in the specification documentation shall only be used with prior approval of the relevant design consultant

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R

Section No. 2

Bill No. 10

Metalwork

Prepared by:

Cepma Engineering Worx (Pty) Ltd

Shop drawings:

1. Shop drawings are to be provided for all elements that are to be fabricated by the contractor's fabricator or supplier
2. All shop drawings are to be submitted to the relevant design consultant or Principal Agent for approval prior to the commencement of fabrication
3. Any fabricated elements installed without prior approval by the relevant design consultant or Principal Agent will be removed at the contractor's cost

Bolts, anchors, etc.:

1. Description of bolts shall be deemed to include nuts and washers
2. Description of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete
3. Items described as "holed for bolt(s)" shall be deemed to exclude the bolts unless otherwise described
4. Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centre

Aluminium doors, windows, shopfronts, viewing panels, etc.

1. For purpose made doors, windows, shopfronts, viewing panels, etc. please refer to the Architect's schedule appended to these Bills of Quantities
2. All doors, windows, shopfronts, viewing panels, etc. shall comply with AAAMSA design criteria
3. Glazing shall comply with SAGGA regulations and

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R

Section No. 2

Bill No. 10

Metalwork

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shall be of the type and thickness as indicated on the Architect's schedule appended to these Bills of Quantities

4. Doors, windows, shopfronts, viewing panels, etc., shall be supplied with protective tape and plastic and shall be removed only once all surrounding trades have been completed

Certification, guarantees, etc.:

The following certificates shall be provided prior to commencement of the site works:

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 respectively
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 material has been permanently marked
5. A warranty from the manufacturer of laminated safety glass and/or hermetically sealed glazing units guaranteeing the products against de-lamination and colour degradation for a period of not less than five years

Door closers, etc.:

1. All overhead transom door closer (Model 774) apertures in frames are to be done in the factory/at fabrication stage

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Section No. 2

Bill No. 10

Metalwork

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Samples:

1. A sample of any approved product must be delivered to site for sign off by the relevant design consultant or Principal Agent prior to commencement of the installation

**GALVANISED STEEL HANDRAILS**

The following in hot dip galvanized mild steel handrails pre-fabricated before galvanizing (painting of steel members elsewhere measured) and fixed to concrete or brickwork all in accordance to the Architect's and Engineer's details and specifications:

The following in type 2 handrail (Ref to Architectural drawing No. WD-XX-9012):

1	50mm Diameter x 6mm thick Continuous pipe rails	m	30
2	Extra for rounded end	No	10
3	Extra for ramp or knee	No	10
4	Extra for bend to 35mm internal radius	No	10
5	Bracket of 12mm diameter with 115mm girth bar once bent to 32mm internal radius and with one end welded to rail and other end with 60mm diameter x 6mm thick base plate twice holed for and including expansion bolts	No	27
<u>Sample panels:</u>			
6	3m long sample hand rail comprising of 2(No.) stop ends and brackets at 1,2m centres for Architect's approval	No	1

**GALVANISED STEEL BALUSTRADES**

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R

Section No. 2

Bill No. 10

Metalwork

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The following in hot dip galvanized mild steel balustrade pre-fabricated before galvanizing (painting of steel members elsewhere measured) and fixed to concrete or brickwork all in accordance to the Architect's and Engineer's drawings and specifications:

- |   |   |   |    |
|---|---|---|----|
| 7 | Type 1 steel balustrades - 1100mm high to walkways and staircases comprising of 50 x 25 x 3,5mm Thick continuous top rails, 50 x 25 x 3,5mm thick continuous bottom rails welded onto 50 x 25 x 3,5mm posts at a maximum spacing of 1500mm complete with 9(No) 4mm 316 stainless steel cables tapped into flat bar balusters to either end with 1 stainless steel turnbuckle per run at 80mm intervals with the posts welded onto 50mm x 120 x 6mm thick base plates twice holed for and bolted into concrete with 2(No) 24mm expansion bolts (Ref to Architectural drawing No. WD-XX-9012) | m | 65 |
| 8 | Type 1 raking steel balustrades - 1100mm high to staircases comprising of 50 x 25 x 3,5mm Thick continuous top rails, 50 x 25 x 3,5mm thick continuous bottom rails welded onto 50 x 25 x 3,5mm posts at a maximum spacing of 1500mm complete with 9(No) 4mm 316 stainless steel cables tapped into flat bar balusters to either end with 1 stainless steel turnbuckle per run at 80mm intervals with the posts welded onto 50mm x 120 x 6mm thick base plates twice holed for and bolted into concrete with 2(No) 24mm expansion bolts (Ref to Architectural drawing No. WD-XX-9012)       | m | 29 |
| 9 | Type 3a steel balustrades - 500mm high to walkways and ramps comprising of 50 x 25 x 3,5mm Thick continuous top rails, 50 x 25 x 3,5mm thick continuous bottom rails both welded onto 50 x 25 x 3,5mm posts at a maximum spacing of 750mm complete with 9(No) 4mm 316 stainless steel cables tapped into flat bar balusters to either end with 1 stainless steel turnbuckle per run at 80mm intervals with the posts welded onto 50mm x 120 x 6mm thick base plates twice holed for and bolted into concrete with 2(No) 24mm expansion bolts (Ref to Architectural drawing No. WD-XX-9014)  | m | 34 |

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R

Section No. 2

Bill No. 10

Metalwork

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Sample panels:

- |    |   |    |   |
|----|---|----|---|
| 10 | 3m Long Type 1 Balustrade sample panel for Architect's approval supplied complete with the appropriate paint colour         | No | 1 |
| 11 | 3m Long Type 1 Racking balustrade sample panel for Architect's approval supplied complete with the appropriate paint colour | No | 1 |
| 12 | 3m Long Type 3a Balustrade sample panel for Architect's approval supplied complete with the appropriate paint colour        | No | 1 |

**WELDED GALVANISED POSTS, GATES, ETC.****The following in galvanised mild steel security gates:**

- |    |   |    |   |
|----|---|----|---|
| 13 | Security grid frame size. 1020mm x 2620mm high comprising of 50 x 50 x 3mm Angle section surround welded at corners including 12 (No) 25 x 3mm lugs 200mm long welded on at back and built into brickwork; double gate formed of 40 x 60 x 2mm rectangular hollow section framing all round mitred and welded at corners with two 40 x 6mm flat section intermediate rails welded at ends to framing and with six 19mm diameter vertical rods passed through and welded to intermediate rails and welded to framing complete with 3 (No) 15mm Diameter 80mm long hinges, upright double throw five lever security mortice lock with a pair of cover plates size. 160 x 150 x 6mm thick holed for keys including 40 x 20 x 2mm thick 160mm long keep and 12mm barrel bolt all as per the drawings overall size of gate. 900 x 2097mm high; and 2(No) grids all to the Architect's specifications | No | 3 |
| 14 | 50 x 50 x 3mm Angle section surround for gate size 1500 x 2100mm high mitred and welded at corners including 8 (No.) 25 x 3mm lugs 200mm long welded on at back and built into brickwork  | No | 3 |

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R

Section No. 2

Bill No. 10

Metalwork

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15	Double gate with even leaves formed of 40 x 60 x 2mm rectangular hollow section framing all round mitred and welded at corners with two 40 x 6mm flat section intermediate rails welded at ends to framing and with 19mm diameter vertical rods at 100mm centres passed through and welded to intermediate rails and welded to framing complete with 4(No.) 15mm Diameter 80mm long hinges and "Fortis" or similar approved pad bolt Ref. No. F358032-ZA and keep gate overall size. 1400mm long x 2012mm high	No	3
16	50 x 50 x 3mm Angle section surround for gate size 900 x 2100mm high mitred and welded at corners including 8 (No.) 25 x 3mm lugs 200mm long welded on at back and built into brickwork	No	2
17	Single gate formed of 40 x 60 x 2mm rectangular hollow section framing all round mitred and welded at corners with two 40 x 6mm flat section intermediate rails welded at ends to framing and with 19mm diameter vertical rods at 100mm centres passed through and welded to intermediate rails and welded to framing complete with 4(No.) 15mm Diameter 80mm long hinges and "Fortis" or similar approved pad bolt Ref. No. F358032-ZA gate overall size. 1400mm long x 2012mm high	No	2
18	Steel gate size. 600 x 2100mm high with 2mm thick cladding panel supplied complete with ironmongery	No	19

**STAINLESS STEEL PRESSED DOOR FRAMES**

**1.6mm Thick double rebated frames complete with 6 (No) M10 rawlbolts predrilled into frame supplied and including 3(No.) 100x75x3mm "Geze Ref. 096/76/SS" or similar approved stainless steel 4 ball bearing butt hinges per door leaf with frame suitable for half brick walls:**

19	Frame for single door size. 1000 x 2032mm high (LI)	No	4
20	Frame for single door size. 813 x 2032mm high (LI)	No	36

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R

Section No. 2

Bill No. 10

Metalwork

Prepared by:

Cepma Engineering Worx (Pty) Ltd



1,6mm Thick double rebated frames complete with 6 (No) M10 rawl bolts pre-drilled into frame supplied and including 3(No.) 100x75x3mm "Geze Ref. 096/76/SS" or similar approved stainless steel 4 ball bearing butt hinges per door leaf with frame suitable for one brick walls:

21	Frame to suite double door size. 1414 x 2032mm high (LI)	No	9
22	Frame to suite double door size. 1243 x 2032mm high (LI)	No	3
23	Frame to suite single door size. 1200 x 2037mm high (LI)	No	7
24	Frame to suite single door size. 1000 x 2037mm high (LI)	No	27
25	Frame to suite single door size. 813 x 2032mm high (LI)	No	62

1,6mm Thick double rebated frames complete with 6 (No) M10 rawl bolts pre-drilled into frame supplied and including 3(No.) 100x75x3mm "Geze Ref. 096/76/SS" or similar approved stainless steel 4 ball bearing butt hinges per door leaf with frame suitable for 280mm cavity brick walls:

26	Frame to suite double door size. 1414 x 2032mm high (LI)	No	2
----	--	----	---

#### ALUMINIUM WINDOWS

Carried to Collection

Section No. 2

Bill No. 10

Metalwork

Prepared by:

Cepma Engineering Worx (Pty) Ltd

R



Approved purpose made vandal proofed aluminium framed windows with a powder coat colour code. ANP 3055 Matt Charcoal factory glazed with "Low E" 9mm toughened safety glass with a U-Value of 3.7W/M2 and shading coefficient supplied complete with all necessary vandal proof furnishing, locking mechanisms and accessories and built into openings all in accordance with the manufacturer's specifications:

27	Window Ref. WA-01 overall size. 1200mm long x 1400mm high	No	49
28	Window Ref. WB-01 overall size. 900mm long x 300mm high	No	6
29	Window Ref. WB-02 overall size. 600mm long x 300mm high	No	4
30	Window Ref. WB-03 overall size. 900mm long x 600mm high	No	8
31	Window Ref. WB-04 overall size. 600mm long x 600mm high	No	6
32	Window Ref. WC-01 overall size. 1600mm long x 1400mm high	No	2
33	Window Ref. WC-02 overall size. 1400mm long x 1100mm high	No	5
34	Window Ref. WC-03 overall size. 850mm long x 1100mm high	No	2
35	Window Ref. WC-04 overall size. 1800mm long x 1100mm high	No	1

#### ALUMINIUM SHOPFRONTS

Carried to Collection

R

Section No. 2

Bill No. 10

Metalwork

Prepared by:

Cepma Engineering Worx (Pty) Ltd

FACILITY: General Justice Gizenga Mpanza Regional Hospital  
 DESCRIPTION: New 28 Bedded Male & Female  
 Inpatient & Outpatient Mental Health Unit

Approved "Clipp 44" or similar approved custom made aluminium frame system powdercoated ANP 3055 Matt Charcoal with all sprandel panels made of 0,6mm aluminium panel, 50mm "Lamdaboard" and 12mm "Nutec" board inside the panel and factory glazed with 9mm toughened safety glass with a U-Value of 3.7W/M2K and shading coefficient of SC Value 0.63 secured with an appropriate glazing bead with the entire system supplied complete with all necessary furnishings, furniture, door hinges, accessories, etc. and built into openings all in accordance with the manufacturer's specifications:

- 36 Ref. S-CT01 overall size. 7340mm long x 3500mm high comprising of 5(No.) 1228mm long x 1100mm high fixed glazed panels, 1(No.) 1200mm long x 1100mm high fixed panel, 5(No.) 1228 x 1400mm high fixed glazed panels, 4(No.) 1228mm long x 1000mm high fixed glazed panels, 1(No.) 1200 x 2400mm high double door supplied complete with "Geza" or similar approved accessories comprising of 6(No.) Sinkless hinges, 4(No.) 662/35 Stainless steel Prof cylinder dead lock R/Bolt latch, 1(No.) IG950933338M N/PL DBL CYL 66MM MK, 2(No.) pair of KBS2090S/350 BTB S.S O/SET 375 x 350 x 25mm handles and 2(No.) pair of GZZW4405 Narrow style CYL ESC SS

No

1

- 37 Ref. S-CT02 overall size. 5900mm long x 3500mm high comprising of 4(No.) 1175mm long x 1100mm high fixed glazed panels, 1(No.) 1200mm long x 1100mm high fixed panel, 4(No.) 1175 x 1400mm high fixed glazed panels, 4(No.) 1175mm long x 1000mm high fixed glazed panels, 1(No.) 1200 x 2400mm high double door supplied complete with "Geza" or similar approved accessories comprising of 6(No.) Sinkless hinges, 4(No.) 662/35 Stainless steel Prof cylinder dead lock R/Bolt latch, 1(No.) IG950933338M N/PL DBL CYL 66MM MK, 2(No.) pair of KBS2090S/350 BTB S.S O/SET 375 x 350 x 25mm handles and 2(No.) pair of GZZW4405 Narrow style CYL ESC SS

No

1

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Section No. 2

Bill No. 10

Metalwork

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Cepma Engineering Worx (Pty) Ltd



38	Ref. S-CT03 overall size. 5900mm long x 3500mm high comprising of 4(No.) 1175mm long x 1100mm high fixed glazed panels, 1(No.) 1200mm long x 1100mm high fixed panel, 4(No.) 1175 x 1400mm high fixed glazed panels, 4(No.) 1175mm long x 1000mm high fixed glazed panels, 1(No.) 1200 x 2400mm high double door supplied complete with "Geza" or similar approved accessories comprising of 6(No.) Sinkless hinges, 4(No.) 662/35 Stainless steel Prof cylinder dead lock R/Bolt latch, 1(No.) IG950933338M N/PL DBL CYL 66MM MK, 2(No.) pair of KBS2090S/350 BTB S.S O/SET 375 x 350 x 25mm handles and 2(No.) pair of GZZW4405 Narrow style CYL ESC SS	No	1		
39	Ref. S-CT04 overall size. 6400mm long x 3500mm high comprising of 4(No.) 1300mm long x 1100mm high fixed glazed panels, 1(No.) 1200mm long x 1100mm high fixed panel, 4(No.) 1300 x 1400mm high fixed glazed panels, 4(No.) 1300mm long x 1000mm high fixed glazed panels, 1(No.) 1200 x 2400mm high double door supplied complete with "Geza" or similar approved accessories comprising of 6(No.) Sinkless hinges, 4(No.) 662/35 Stainless steel Prof cylinder dead lock R/Bolt latch, 1(No.) IG950933338M N/PL DBL CYL 66MM MK, 2(No.) pair of KBS2090S/350 BTB S.S O/SET 375 x 350 x 25mm handles and 2(No.) pair of GZZW4405 Narrow style CYL ESC SS	No	1		
40	Fixed glazed panel unit Ref. S-CT05 overall size. 3400 x 1100mm high comprising of 3(No.) 1133mm long x 1100mm high panels	No	1		
41	Fixed glazed panel unit Ref. S-CT06 overall size. 1500 x 3500mm high comprising of 2(No.) 750mm long x 1100mm high, 2(No.) 750mm long x 1400mm high and 2(No.) 750mm long x 1000mm high panels	No	1		
42	Fixed glazed panel unit Ref. S-EF01 overall size. 1717 x 3500mm high comprising of 2(No.) 858mm long x 1100mm high, 2(No.) 858mm long x 1400mm high and 2(No.) 858mm long x 1000mm high panels	No	1		
Carried to Collection					R
Section No. 2					
Bill No. 10					
Metalwork					
Prepared by:					
Cepma Engineering Worx (Pty) Ltd					



43	Fixed glazed panel unit Ref. S-EF02 overall size. 2912 x 3500mm high comprising of 3(No.) 970mm long x 1100mm high, 3(No.) 970mm long x 1400mm high and 3(No.) 970mm long x 1000mm high panels	No	1		
44	Fixed glazed panel unit Ref. S-EF03 overall size. 950 x 3500mm high comprising of 1(No.) 950mm long x 1100mm high, 1(No.) 950mm long x 1400mm high and 1(No.) 950mm long x 1000mm high panels	No	1		
45	Ref. S-ME01 overall size. 2220mm long x 3500mm high comprising of 2(No.) 360mm long x 500mm high fixed glazed panels, 1(No.) 1500mm long x 500mm high fixed panel, 1(No.) 2200 x 200mm high x 5mm solid aluminium panel powdercoated to same colour as frame, 2(No.) 360 x 400mm high fixed glazed panels, 1(No.) 1500mm long x 400mm high fixed glazed panel, 2(No.) 360mm long x 1400mm high fixed glazed panels, 2(No.) 360mm long x 1000mm high fixed glazed panels, 1(No.) 1500 x 2400mm high double door supplied complete with "Geza" or similar approved accessories comprising of 6(No.) Sinkless hinges, 4(No.) 662/35 Stainless steel Prof cylinder dead lock R/Bolt latch, 1(No.) IG950933338M N/PL DBL CYL 66MM MK, 2(No.) pair of KBS2090S/350 BTB S.S O/SET 375 x 350 x 25mm handles and 2(No.) pair of GZZW4405 Narrow style CYL ESC SS	No	1		
46	Ref. S-ME02 overall size. 1900mm long x 3500mm high comprising of 1(No.) 450mm long x 1100mm high fixed glazed panel, 1(No.) 550mm long x 1100mm high fixed glazed panel, 1(No.) 450mm long x 1400mm high fixed panel, 1(No.) 550mm long x 1400mm high fixed panel, 1(No.) 450mm long x 1000mm high fixed glaze panel, 1(No.) 550mm long x 1000mm high fixed glazed panel, 1(No.) 900 x 1100mm high fixed panel, 1(No.) 900 x 2400mm high single door supplied complete with "Geza" or similar approved accessories comprising of 3(No.) Sinkless hinges, 1(No.) 662/35 Stainless steel Prof cylinder dead lock R/Bolt latch, 1(No.) IG950933338M N/PL DBL CYL 66MM MK, 1(No.) pair of KBS2090S/350 BTB S.S O/SET 375 x 350 x 25mm handles and 1(No.) pair of GZZW4405 Narrow style CYL ESC SS	No	1		
Carried to Collection					R
Section No. 2					
Bill No. 10					
Metalwork					
Prepared by:					
Cepma Engineering Worx (Pty) Ltd					

47 Ref. S-ME03 overall size. 1950mm long x 3500mm high comprising of 2(No.) 525mm long x 1100mm high fixed glazed panels, 2(No.) 525mm long x 1000mm high fixed glazed panels, 2(No.) 525mm long x 1400mm high fixed panels, 1(No.) 900 x 1100mm high fixed panel, 1(No.) 900 x 2400mm high single door supplied complete with "Geza" or similar approved accessories comprising of 3(No.) Sinkless hinges, 1(No.) 662/35 Stainless steel Prof cylinder dead lock R/Bolt latch, 1(No.) IG950933338M N/PL DBL CYL 66MM MK, 1(No.) pair of KBS2090S/350 BTB S.S O/SET 375 x 350 x 25mm handles and 1(No.) pair of GZZW4405 Narrow style CYL ESC SS

No

1

48 Ref. S-NS01 overall size. 2405mm long x 3500mm high comprising of 1(No.) 450mm long x 1100mm high fixed glazed panel, 1(No.) 950mm long x 1100mm high fixed glazed panel, 1(No.) 1005mm long x 1100mm high fixed panel, 1(No.) 450mm long x 1400mm high fixed panel, 1(No.) 1005mm long x 1400mm high fixed glaze panel, 1(No.) 450 x 1000mm high fixed panel, 1(No.) 1005mm long x 1000mm high fixed panel, 1(No.) 900 x 2400mm high single door supplied complete with "Geza" or similar approved accessories comprising of 3(No.) Sinkless hinges, 1(No.) 662/35 Stainless steel Prof cylinder dead lock R/Bolt latch, 1(No.) IG950933338M N/PL DBL CYL 66MM MK, 1(No.) pair of KBS2090S/350 BTB S.S O/SET 375 x 350 x 25mm handles and 1(No.) pair of GZZW4405 Narrow style CYL ESC SS

No

1

49 Ref. S-NS02 overall size. 1825mm long x 3500mm high comprising of 1(No.) 875mm long x 1100mm high fixed glazed panel, 1(No.) 950mm long x 1100mm high fixed glazed panel, 1(No.) 875mm long x 1400mm high fixed panel, 1(No.) 875mm long x 1000mm high fixed panel, 1(No.) 950 x 2400mm high single door supplied complete with "Geza" or similar approved accessories comprising of 3(No.) Sinkless hinges, 1(No.) 662/35 Stainless steel Prof cylinder dead lock R/Bolt latch, 1(No.) IG950933338M N/PL DBL CYL 66MM MK, 1(No.) pair of KBS2090S/350 BTB S.S O/SET 375 x 350 x 25mm handles and 1(No.) pair of GZZW4405 Narrow style CYL ESC SS

No

1

Carried to Collection

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Section No. 2

Bill No. 10

Metalwork

Prepared by:

Cepma Engineering Worx (Pty) Ltd



50	Ref. S-NS03 overall size. 1890mm long x 3500mm high comprising of 1(No.) 940mm long x 1100mm high fixed glazed panel, 1(No.) 950mm long x 1100mm high fixed glazed panel, 1(No.) 940mm long x 1400mm high fixed panel, 1(No.) 940mm long x 1000mm high fixed panel, 1(No.) 950 x 2400mm high single door supplied complete with "Geza" or similar approved accessories comprising of 3(No.) Sinkless hinges, 1(No.) 662/35 Stainless steel Prof cylinder dead lock R/Bolt latch, 1(No.) IG950933338M N/PL DBL CYL 66MM MK, 1(No.) pair of KBS2090S/350 BTB S.S O/SET 375 x 350 x 25mm handles and 1(No.) pair of GZZW4405 Narrow style CYL ESC SS	No	1
51	Ref. S-NS04 overall size. 1890mm long x 3500mm high comprising of 1(No.) 940mm long x 1100mm high fixed glazed panel, 1(No.) 950mm long x 1100mm high fixed glazed panel, 1(No.) 940mm long x 1400mm high fixed panel, 1(No.) 940mm long x 1000mm high fixed panel, 1(No.) 950 x 2400mm high single door supplied complete with "Geza" or similar approved accessories comprising of 3(No.) Sinkless hinges, 1(No.) 662/35 Stainless steel Prof cylinder dead lock R/Bolt latch, 1(No.) IG950933338M N/PL DBL CYL 66MM MK, 1(No.) pair of KBS2090S/350 BTB S.S O/SET 375 x 350 x 25mm handles and 1(No.) pair of GZZW4405 Narrow style CYL ESC SS	No	1
52	Fixed glazed panel unit Ref. S-NS05 overall size. 6095 x 1400mm high comprising of 2(No.) 1092mm long x 1400mm high, 2(No.) 799mm long x 1400mm high and 2(No.) 1156mm long x 1400mm high panels	No	1
53	Fixed glazed panel unit Ref. S-NS06 overall size. 5402 x 1400mm high comprising of 2(No.) 1161mm long x 1400mm high, 1(No.) 1333mm long x 1400mm high and 2(No.) 873mm long x 1400mm high panels	No	1
54	Fixed glazed panel unit Ref. S-NS07 overall size. 5521 x 1400mm high comprising of 2(No.) 927mm long x 1400mm high, 1(No.) 1204mm long x 1400mm high and 2(No.) 1230mm long x 1400mm high panels	No	1

Carried to Collection

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Section No. 2

Bill No. 10

Metalwork

Prepared by:

Cepma Engineering Worx (Pty) Ltd



55	Fixed glazed panel unit Ref. S-NS08 overall size. 7317 x 1400mm high comprising of 1(No.) 688mm long x 1400mm high, 2(No.) 1155mm long x 1400mm high, 1(No.) 1241mm long x 1400mm high and 3(No.) 1032mm long x 1400mm high panels	No	1
56	Fixed glazed panel unit Ref. S-NS09 overall size. 4000 x 2500mm high comprising of 3(No.) 1333mm long x 1100mm high and 3(No.) 1333mm long x 1400mm high panels	No	2
57	Fixed glazed panel unit Ref. S-NS10 overall size. 4135 x 2500mm high comprising of 3(No.) 1378mm long x 1100mm high and 3(No.) 1378mm long x 1400mm high panels	No	1
58	Fixed glazed panel unit Ref. S-NS11 overall size. 3180 x 2500mm high comprising of 3(No.) 1060mm long x 1100mm high and 3(No.) 1060mm long x 1400mm high panels	No	1
59	Fixed glazed panel unit Ref. S-NS12 overall size. 450 x 2500mm high comprising of 1(No.) 450mm long x 1100mm high and 1(No.) 450mm long x 1400mm high panels	No	2
60	Fixed glazed panel unit Ref. S-QR01 overall size. 700 x 1400mm high comprising of 1(No.) 700mm long x 400mm high and 1(No.) 700mm long x 1000mm high panels	No	3
61	Fixed glazed panel unit Ref. S-QR02 overall size. 1200 x 1100mm high	No	1
62	Fixed glazed panel unit Ref. S-SR01 overall size. 1300 x 3500mm high comprising of 1(No.) 1300mm long x 1100mm high, 1(No.) 1300mm long x 1400mm high and 1(No.) 1300mm long x 1000mm high panels	No	1
63	Fixed glazed panel unit Ref. S-SR02 overall size. 1540 x 3500mm high comprising of 2(No.) 770mm long x 1100mm high, 2(No.) 770mm long x 1400mm high and 2(No.) 770mm long x 1000mm high panels	No	1

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Section No. 2

Bill No. 10

Metalwork

Prepared by:

Cepma Engineering Worx (Pty) Ltd

64	Fixed glazed panel unit Ref. S-SR03 overall size. 900 x 1100mm high	No	1		
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65	Fixed glazed panel unit Ref. S-SR04 overall size. 900 x 1100mm high	No	2		
----	---	----	---	--	--

### **ALUMINIUM LOUVRE SYSTEMS**

**"Trolox AWG-G" or similar approved aluminium louvre system powdercoated Jet Black ITC 39005 with mullion formed of galvanised sheet steel and drilled to sides and rear for connection to other sections or final support structure with the system supplied with 25x25mm galvanised vermin mesh screen all in accordance with the Architect's detail as per drawing WD-XX-9003 and installed in accordance with the manufacturer's specifications:**

66	Unit size. 9000mm long x 3000mm high	No	2		
----	--------------------------------------	----	---	--	--

67	Unit size. 6200mm long x 3000mm high	No	1		
----	--------------------------------------	----	---	--	--

68	Unit size. 1200mm long x 600mm high	No	2		
----	-------------------------------------	----	---	--	--

### **SECURITY SCREENS:**

**"Trellidor Clear Guard" or similar approved custom made security screen system supplied and installed complete with vandal proof finishing, ironmongery, etc. and installed all in accordance with the manufacturer's specifications:**

69	"French window" type unit with double swing screens to suite window Ref. WA-01 size. 1200mm long x 1400mm high	No	49		
----	--	----	----	--	--

70	"Awning window unit" with top hung screens to suite window Ref. WB-01 size. 900mm long x 300mm high	No	6		
----	---	----	---	--	--

71	"Awning window unit" with top hung screens to suite window Ref. WB-02 size. 600mm long x 300mm high	No	4		
----	---	----	---	--	--

**Carried to Collection**

**R**

Section No. 2

Bill No. 10

Metalwork

Prepared by:

Cepma Engineering Worx (Pty) Ltd



FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

72	"Awning window unit" with top hung screens to suite window Ref. WB-03 size. 900mm long x 600mm high	No	8
73	"Awning window unit" with top hung screens to suite window Ref. WB-04 size. 600mm long x 600mm high	No	6
74	"Griffinguard double sliding window unit" with sliding screens to suite window Ref. WC-01 size. 1600mm long x 1400mm high	No	2
75	"Griffinguard double sliding window unit" with sliding screens to suite window Ref. WC-02 size. 1400mm long x 1100mm high	No	5
76	"Griffinguard double sliding window unit" with sliding screens to suite window Ref. WC-03 size. 850mm long x 1100mm high	No	2
77	"Griffinguard double sliding window unit" with sliding screens to suite window Ref. WC-04 size. 1800mm long x 1100mm high	No	1

**GALVANIZED PRESSED STEEL  
TRANSFORMER ROOM DOORS AND FRAMES**

**Custom made galvanised steel transformer room doors complete with louvers and rodent prevention mesh and frames installed into brickwork or concrete all accordance with the manufacturer's specifications:**

78	1600 x 2100mm high Transformer room double door in 230mm opening complete with louvres in each leaf, lockset, hinges, hot dipped rebated galvanised 1,6mm steel door frame, etc.	No	3
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**STEEL SLIDING DOORS, ETC**

Carried to Collection

R

Section No. 2

Bill No. 10

Metalwork

Prepared by:

Cepma Engineering Worx (Pty) Ltd



**"Serranda" or similar and approved heavy duty powder coated roller shutter doors fixed in accordance to the manufacturer's specifications:**

- |    |  |    |   |
|----|--|----|---|
| 79 | Roller shutter door to suite opening size. 3000mm x 3200mm high complete with framing and all necessary opening, closing and operation mechanisms (manual operation) | No | 1 |
| 80 | Roller shutter door to suite opening size. 3100mm x 1680mm high complete with framing and all necessary opening, closing and operation mechanisms (manual operation) | No | 1 |
| 81 | Roller shutter door to suite opening size. 2600mm x 1680mm high complete with framing and all necessary opening, closing and operation mechanisms (manual operation) | No | 2 |
| 82 | Roller shutter door to suite opening size. 2400mm x 1680mm high complete with framing and all necessary opening, closing and operation mechanisms (manual operation) | No | 1 |

**EXPANDING SECURITY GATES**

**"Trellidor" or similar and approved factory pre-painted (White) retractable security gates supplied complete with framing, locks, etc. and installed all in accordance with the manufacturer's specifications:**

- |    |  |    |   |
|----|--|----|---|
| 83 | Powder coated galvanised mild steel security gate, size 1300 x 2135mm high, with 25 x 25mm framing, 25 x 6mm mid rail and filled in with 10mm diameter vertical bars at 100mm centres and fitted with a four lever deadbolt in lock case and one pair of heavy duty hinges | No | 1 |
|----|--|----|---|

**MENTIS GRATING**

Carried to Collection

R

Section No. 2

Bill No. 10

Metalwork

Prepared by:

Cepma Engineering Worx (Pty) Ltd

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

Heavy duty "Mentis" or similar approved grating made up of 80 x 5mm bars at 50mm centres and 50x5mm spacer bars at 150mm centres laid and including 90x90x6mm L galvanised channel with 25x5mm L fish tails lugs 100mm long welded onto the channel at 300mm centres and cast into concrete wall all in accordance with Engineer's specifications:

84

Grating overall size. 5425mm long x 800mm wide

No

1

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R

Section No. 2

Bill No. 10

Metalwork

Prepared by:

Cepma Engineering Worx (Pty) Ltd

Section No. 2

Bill No. 10

Metalwork

**COLLECTION**

Total Brought Forward from Page No.

Page  
No

Amount

146

147

148

149

150

151

152

153

154

155

156

157

158

159

160

161

162

163

Carried Forward

R

Section No. 2

Bill No. 10

Metalwork

Prepared by:

Cepma Engineering Worx (Pty) Ltd



FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male & Female  
Inpatient & Outpatient Mental Health Unit

Section No. 2

Bill No. 10

Metalwork

**COLLECTION**Page  
No

Amount

Brought Forward

R

Total Brought Forward from Page No.

164

165

166

Carried Forward to Summary of Section No. 2

R

Section No. 2

Bill No. 10

Metalwork

Prepared by:

Cepma Engineering Worx (Pty) Ltd

Item  
No

Quantity

Rate

Amount

**BILL NO. 11****PLASTERING**Descriptions and preambles:

1. For preambles see "Standard Preambles to all Trades Rev 3 - DoH 2009"
2. Contractor is referred to Trades to follow hereafter for preambles and full descriptions of materials and items not fully described in this Trade and which shall apply equally to work in this Trade, unless otherwise described

Trade Names and Proprietary Products:

1. All descriptions or clauses where trade names or proprietary products are specified, are deemed to include the phrase "or other approved"

**SUPPLEMENTARY PREAMBLES**Reference to drawings and project specification documentation:

1. Contractors to make reference to drawings and project specification documentation that forms part of these Bills of Quantities for all installations and procedures required for the installation or execution of these works

Carried to Collection

R

Section No. 2

Bill No. 11

Plastering

Prepared by:

Cepma Engineering Worx (Pty) Ltd

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

Material samples:

1. Before commencement of any work, the contractor will be required to timeously supply a sample of the material to be used to the Principal Agent for approval at no cost
2. Material installed without prior approval from the Principal Agent will be removed at the contractor's cost

Carried to Collection

R

Section No. 2

Bill No. 11

Plastering

Prepared by:

Cepma Engineering Worx (Pty) Ltd



General:

1. All details and dimensions shown on the drawings are subject to confirmation on site and during construction. All dimensions and levels are to be confirmed on site before commencement of the works
2. All levels on structural drawings refer to the top of concrete, steel, etc. unless otherwise indicated
3. The Contractor is to comply at all times with all the relevant municipal regulations, conditions of approval and bylaws in the area of the site and is to ensure that a set of approved building plans is on site at all times
4. All specification documentation, drawings, etc. shall be available on site at all times
5. The Contractor shall at all times be fully responsible for quality control on site ensuring strict compliance with all drawings, details and specifications issued by the relevant design consultant. The Contractor shall submit a quality control plan for each portion of work prior to the commencement for acceptance. The works shall only commence on acceptance of the quality plan by the relevant design consultant
6. All products specified for use are to be used in strict accordance with the manufacturer's specifications and where applicable by an approved manufacturer's applicator or installer
7. Products different to those specified in the specification documentation shall only be used with prior approval of the relevant design consultant

Carried to Collection

R

Section No. 2

Bill No. 11

Plastering

Prepared by:

Cepma Engineering Worx (Pty) Ltd

Fixing:

1. All screeds to be jointed into panels (4m x 4m maximum)

Samples:

1. A sample of any approved product must be delivered to site for sign off by the relevant design consultant or Principal Agent prior to commencement of the installation

**GRANOLITHIC****Untinted granolithic screed to concrete, finished to a smooth and even surface with a steel trowel:**

1	50mm Thick on floors and landings (LI)	m2	197
2	50mm Thick on treads and risers (LI)	m2	62
3	25mm Thick on floors and landings (LI)	m2	85

**SCREEDS****(1:3) Screeds on concrete:**

4	50mm Average thick on floors to falls (LI)	m2	115
5	30mm Average thick on floors to falls (LI)	m2	4,043
6	50mm Thick on floors and landings (LI)	m2	2,499
7	25mm Thick on floors and landings (LI)	m2	2

Carried to Collection

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Section No. 2

Bill No. 11

Plastering

Prepared by:

Cepma Engineering Worx (Pty) Ltd

Prepare, prime with bonding liquid and apply "TAL Screed master" or similar approved self levelling sub-floor screed all in accordance with the manufacturer's specifications:

8	To screed (LI)	m2	2,452
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**SPECIALIST EPOXY FLOORING AND WALL FINISHES**

Apply an approved anti-microbial non-slip epoxy 5mm thick all in accordance with manufacturers instructions:

9	On Walls	m2	1,760
---	----------	----	-------

10	On Narrow widths, reveals, etc.	m2	25
----	---------------------------------	----	----

11	On walls in isolated panels, splashbacks, etc.	m2	54
----	--	----	----

Apply an approved non-slip finish epoxy self levelling floor finish 5mm thick all in accordance with manufacturers instructions:

12	On floors	m2	159
----	-----------	----	-----

**Epoxy skirting / polyurethane coved finish:**

13	2.5mm thick x 75mm high screeded skirting 5mm proud of plaster	m	178
----	--	---	-----

**INTERNAL PLASTER**

**One coat 4:1 cement plaster on brickwork:**

14	On walls (LI)	m2	9,696
----	---------------	----	-------

15	On narrow widths (LI)	m2	379
----	-----------------------	----	-----

**EXTERNAL PLASTER**

Carried to Collection

R

Section No. 2

Bill No. 11

Plastering

Prepared by:

Cepma Engineering Worx (Pty) Ltd



One coat 4:1 cement plaster on brickwork:

16	On walls (LI)	m2	43
17	On narrow widths (LI)	m2	41

One coat cement 4:1 cement plaster on concrete:

18	On narrow widths (LI)	m2	8
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Carried to Collection

R

Section No. 2

Bill No. 11

Plastering

Prepared by:

Cepma Engineering Worx (Pty) Ltd

Section No. 2

Bill No. 11

Plastering

**COLLECTION**

Total Brought Forward from Page No.

Page  
No

Amount

169

170

171

172

173

174

Carried Forward to Summary of Section No. 2

R

Section No. 2

Bill No. 11

Plastering

Prepared by:

Cepma Engineering Worx (Pty) Ltd

Item No		Quantity	Rate	Amount
	<b><u>BILL NO. 12</u></b>			
	<b><u>TILING</u></b>			
	<u>Descriptions and preambles:</u>			
	1. For preambles see "Standard Preambles to all Trades Rev 3 - DoH 2009"			
	2. Contractor is referred to Trades to follow hereafter for preambles and full descriptions of materials and items not fully described in this Trade and which shall apply equally to work in this Trade, unless otherwise described			
	<u>Trade Names and Proprietary Products:</u>			
	1. All descriptions or clauses where trade names or proprietary products are specified, are deemed to include the phrase "or other approved"			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	<u>Reference to drawings and project specification documentation:</u>			
	1. Contractors to make reference to drawings and project specification documentation that forms part of these Bills of Quantities for all installations and procedures required for the installation or execution of these works			
	<b>Carried to Collection</b>		R	
	Section No. 2			
	Bill No. 12			
	Tiling			
	Prepared by:			
	Cepma Engineering Worx (Pty) Ltd			



FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

Material samples:

1. Before commencement of any work, the contractor will be required to timeously supply a sample of the material to be used to the Principal Agent for approval at no cost
2. Material installed without prior approval from the Principal Agent will be removed at the contractor's cost

Carried to Collection

R

Section No. 2

Bill No. 12

Tiling

Prepared by:

Cepma Engineering Worx (Pty) Ltd

General:

1. All details and dimensions shown on the drawings are subject to confirmation on site and during construction. All dimensions and levels are to be confirmed on site before commencement of the works
2. All levels on structural drawings refer to the top of concrete, steel, etc. unless otherwise indicated
3. The Contractor is to comply at all times with all the relevant municipal regulations, conditions of approval and bylaws in the area of the site and is to ensure that a set of approved building plans is on site at all times
4. All specification documentation, drawings, etc. shall be available on site at all times
5. The Contractor shall at all times be fully responsible for quality control on site ensuring strict compliance with all drawings, details and specifications issued by the relevant design consultant. The Contractor shall submit a quality control plan for each portion of work prior to the commencement for acceptance. The works shall only commence on acceptance of the quality plan by the relevant design consultant
6. All products specified for use are to be used in strict accordance with the manufacturer's specifications and where applicable by an approved manufacturer's applicator or installer
7. Products different to those specified in the specification documentation shall only be used with prior approval of the relevant design consultant

Carried to Collection

R

Section No. 2

Bill No. 12

Tiling

Prepared by:

Cepma Engineering Worx (Pty) Ltd

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

Samples:

1. A sample of any approved product must be delivered to site for sign off by the relevant design consultant or Principal Agent prior to commencement of the installation

**URINAL DIVIDERS****"Laufen" or similar approved ceramic urinal divider plugged into wall:**

- 1 400mm wide x 100mm thick x 720mm high urinal divider installed complete as per manufacturer's specifications

No

2

**CORNER PROTECTORS****Supply and install Grade 304 (18/10) stainless steel buffed to an even smooth finish all over corner protectors:**

- 2 75mm x 75mm x 1,2mm Thick angle section corner protector 1200mm long, with the two top corners rounded to 10mm radius with each leg nine times holed for and plugged to brickwork with stainless steel dome headed screws (Provisional)

No

60

- 3 75mm x 75mm x 1,2mm Thick angle section corner protector 1000mm long, with the two top corners rounded to 10mm radius with each leg nine times holed for and plugged to brickwork with stainless steel dome headed screws (Provisional)

No

15

- 4 32mm x 32mm x 1,2mm Thick angle section corner protector 1200mm long, with the two top corners rounded to 10mm radius with each leg nine times holed for and plugged to brickwork with stainless steel dome headed screws (Provisional)

No

30

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R

Section No. 2

Bill No. 12

Tiling

Prepared by:

Cepma Engineering Worx (Pty) Ltd



FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

Section No. 2

Bill No. 12

Tiling

**COLLECTION**

Total Brought Forward from Page No.

Page  
No

Amount

176

177

178

179

Carried Forward to Summary of Section No. 2

R

Section No. 2

Bill No. 12

Tiling

Prepared by:

Cepma Engineering Worx (Pty) Ltd

Item No		Quantity	Rate	Amount
	<b><u>BILL NO. 13</u></b>			
	<b><u>PLUMBING AND DRAINAGE</u></b> <b><u>(PROVISIONAL)</u></b>			
	<u>Descriptions and preambles:</u>			
	1. For preambles see "Standard Preambles to all Trades Rev 3 - DoH 2009"			
	2. Contractor is referred to Trades to follow hereafter for preambles and full descriptions of materials and items not fully described in this Trade and which shall apply equally to work in this Trade, unless otherwise described			
	<u>Trade Names and Proprietary Products:</u>			
	1. All descriptions or clauses where trade names or proprietary products are specified, are deemed to include the phrase "or other approved"			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	<u>Reference to drawings and project specification documentation:</u>			
	1. Contractors to make reference to drawings and project specification documentation that forms part of these Bills of Quantities for all installations and procedures required for the installation or execution of these works			
	<b>Carried to Collection</b>		R	
	Section No. 2			
	Bill No. 13			
	Plumbing & drainage (Provisional)			
	<b>Prepared by:</b>			
	<b>Cepma Engineering Worx (Pty) Ltd</b>			

FACILITY: General Justice Gizenga Mpanza Regional Hospital  
DESCRIPTION: New 28 Bedded Male & Female  
Inpatient & Outpatient Mental Health Unit

Material samples:

1. Before commencement of any work, the contractor will be required to timeously supply a sample of the material to be used to the Principal Agent for approval at no cost
2. Material installed without prior approval from the Principal Agent will be removed at the contractor's cost

Carried to Collection

R

Section No. 2  
Bill No. 13  
Plumbing & drainage (Provisional)  
Prepared by:  
Cepma Engineering Worx (Pty) Ltd



FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male & Female  
Inpatient & Outpatient Mental Health UnitGeneral:

1. All details and dimensions shown on the drawings are subject to confirmation on site and during construction. All dimensions and levels are to be confirmed on site before commencement of the works
2. All levels on structural drawings refer to the top of concrete, steel, etc. unless otherwise indicated
3. The Contractor is to comply at all times with all the relevant municipal regulations, conditions of approval and bylaws in the area of the site and is to ensure that a set of approved building plans is on site at all times
4. All specification documentation, drawings, etc. shall be available on site at all times
5. The Contractor shall at all times be fully responsible for quality control on site ensuring strict compliance with all drawings, details and specifications issued by the relevant design consultant. The Contractor shall submit a quality control plan for each portion of work prior to the commencement for acceptance. The works shall only commence on acceptance of the quality plan by the relevant design consultant
6. All products specified for use are to be used in strict accordance with the manufacturer's specifications and where applicable by an approved manufacturer's applicator or installer
7. Products different to those specified in the specification documentation shall only be used with prior approval of the relevant design consultant

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R

Section No. 2

Bill No. 13

Plumbing &amp; drainage (Provisional)

Prepared by:

Cepma Engineering Worx (Pty) Ltd

Shop drawings:

1. Shop drawings are to be provided for all elements that are to be fabricated by the contractor's fabricator or supplier
2. All shop drawings are to be submitted to the relevant design consultant or Principal Agent for approval prior to the commencement of fabrication
3. Any fabricated elements installed without prior approval by the relevant design consultant or Principal Agent will be removed at the contractor's cost

Samples:

1. A sample of any approved product must be delivered to site for sign off by the relevant design consultant or Principal Agent prior to commencement of the installation

**SOIL AND WASTE DRAINAGE**

- 1 Search for, find, excavate not exceeding 1,5m deep to expose existing sewer pipe, cut in as necessary and connect new 110mm soil pipe, including all the necessary fittings, back filling and ramming

No

3

**Removal of existing services and fittings that might be within the confines of the site and not evident at the time of tender (any services encountered and removed are to be quantified and signed off by the relevant consultant):**

- 2 Removal of existing cast iron pipes not exceeding 300mm diameter at a depth not exceeding 2m deep including all necessary backfilling (LI)
- 3 Removal of existing cast iron pipes not exceeding 300mm diameter at a depth exceeding 2m and not exceeding 4m deep including all necessary backfilling

m

10

m

10

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R

Section No. 2

Bill No. 13

Plumbing &amp; drainage (Provisional)

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4	Removal of existing cast iron pipes exceeding 300mm and not exceeding 500mm diameter at a depth not exceeding 2m deep including all necessary backfilling	m	10		
5	Removal of existing cast iron pipes exceeding 300mm and not exceeding 500mm diameter at a depth exceeding 2m and not exceeding 4m deep including all necessary backfilling	m	10		
6	Removal of precast manholes not exceeding 1m girth and at a depth not exceeding 2m deep including all necessary backfilling (LI)	No	1		
7	Removal of precast manholes not exceeding 1m girth and at a depth exceeding 2m and not exceeding 4m deep including all necessary backfilling (LI)	No	1		
<b><u>Unplasticised polyvinyl chloride (uPVC) pipes:</u></b>					
8	110 mm Pipes laid in and including trenches not exceeding 2m deep (LI)	m	297		
9	110 mm Pipes laid in and including trenches exceeding 2 m and not exceeding 4.0m deep	m	75		
10	110 mm Pipes laid in and including trenches exceeding 4m and not exceeding 6.0m deep	m	24		
<b><u>Excavate for and build new standard precast concrete manhole formed of 150 mm thick Class 20/19 concrete bottom thickened out size 600 mm wide x 150 mm thick in centre, sides formed of 1 050 mm diameter "Superocla" precast concrete sections with starter ring on bottom, 150 mm thick cover reducer slab with 100 mm thick shaft cover slab with cast iron circular manhole cover and frame Type 4 (SABS 558), including all benching, channels, bends, formwork, etc:</u></b>					
11	Manhole with chamber 1 050 mm wide x exceeding 1 000mm and not exceeding 1000mm (LI)	No	5		
12	Manhole with chamber 1 050 mm wide x exceeding 1 000mm and not exceeding 2 000mm (LI)	No	20		
<b>Carried to Collection</b>				R	
Section No. 2					
Bill No. 13					
Plumbing & drainage (Provisional)					
Prepared by:					
Cepma Engineering Worx (Pty) Ltd					



13	Manhole with chamber 1 050 mm wide x exceeding 2 000mm and not exceeding 4000mm	No	6		
14	Manhole with chamber 1 050 mm wide x exceeding 4000mm and not exceeding 5000mm	No	2		
<b><u>Extra over trench and base excavations in soft material for:</u></b>					
15	Intermediate material	m3	43		
16	Hard rock material	m3	217		
17	Class A boulder material	m3	7		
18	Class B boulder material	m3	3		
<b><u>Gratings, covers, etc.:</u></b>					
19	550 x 550mm x 127kg Cast iron grating and frame (G0889), with frame bedded in 3:1 cement mortar and cover sealed in tallow	No	1		
20	600 x 600mm "Saint Gabion - Code 2130" or similar and approved medium duty lid and frame with frame bedded in 3:1 cement mortar and cover sealed in tallow	No	32		
<b><u>Testing:</u></b>					
21	Testing of the entire soil water reticulation installation		Item		
<b><u>WATER SUPPLIES</u></b>					
22	Search, locate and excavate for and cut into existing 160mm HDPE pipe and insert new fitting (elsewhere measured)	No	1		
<b>Carried to Collection</b>				R	
Section No. 2					
Bill No. 13					
Plumbing & drainage (Provisional)					
Prepared by:					
Cepma Engineering Worx (Pty) Ltd					

**Removal of existing services and fittings that might be within the confines of the site and not evident at the time of tender (any services encountered and removed are to be quantified and signed off by the relevant consultant):**

23	Removal of existing cast iron pipes not exceeding 300mm diameter at a depth not exceeding 2m deep including all necessary backfilling (LI)	m	10
24	Removal of existing cast iron pipes not exceeding 300mm diameter at a depth exceeding 2m and not exceeding 4m deep including all necessary backfilling	m	10
25	Removal of existing cast iron pipes exceeding 300mm and not exceeding 500mm diameter at a depth not exceeding 2m deep including all necessary backfilling	m	10
26	Removal of existing cast iron pipes exceeding 300mm and not exceeding 500mm diameter at a depth exceeding 2m and not exceeding 4m deep including all necessary backfilling	m	10
27	Removal of water meter chambers not exceeding 1m girth and at a depth not exceeding 2m deep including all necessary backfilling	No	1

**Class 16 polyethylene (HDPE) pipes laid in ground not exceeding 1 m deep including backfilling and compacting of trenches:**

28	75mm Dia. Pipe (LI)	m	8
29	160mm dia. Pipe (LI)	m	200

**Extra over piping for "Plasson" high compression fittings:**

30	160mm Diameter fittings	No	12
31	75mm Diameter fittings	No	1

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Section No. 2

Bill No. 13

Plumbing & drainage (Provisional)

Prepared by:

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**Extra over trench and base excavations in soft material for:**

32	Intermediate material	m3	36
33	Hard rock material	m3	179

**Testing:**

34	Testing of the entire fresh water reticulation installation	Item	
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**FIRE WATER RETICULATION**

35	Search, locate and excavate for and cut into existing 160mm copper fire water pipe and insert new fitting (elsewhere measured)	No	1
----	--	----	---

**Removal of existing services and fittings that might be within the confines of the site and not evident at the time of tender (any services encountered and removed are to be quantified and signed off by the relevant consultant):**

36	Removal of existing cast iron pipes not exceeding 300mm diameter at a depth not exceeding 2m deep including all necessary backfilling (LI)	m	10
37	Removal of existing cast iron pipes not exceeding 300mm diameter at a depth exceeding 2m and not exceeding 4m deep including all necessary backfilling	m	10
38	Removal of existing cast iron pipes exceeding 300mm and not exceeding 500mm diameter at a depth not exceeding 2m deep including all necessary backfilling	m	10
39	Removal of existing cast iron pipes exceeding 300mm and not exceeding 500mm diameter at a depth exceeding 2m and not exceeding 4m deep including all necessary backfilling	m	10
40	Removal of water meter chambers not exceeding 1m girth and at a depth not exceeding 2m deep including all necessary backfilling	No	1

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R

Section No. 2

Bill No. 13

Plumbing &amp; drainage (Provisional)

Prepared by:

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<u>Class 16 polyethylene (HDPE) pipes laid in ground not exceeding 1 m deep including backfilling and compacting of trenches:</u>					
41	75mm Dia. Pipe (LI)	m	8		
42	160mm dia. Pipe (LI)	m	150		
<u>Extra over piping for "Plasson" high compression fittings:</u>					
43	160mm Diameter fittings	No	21		
44	75mm Diameter fittings	No	1		
<u>Extra over trench and base excavations in soft material for:</u>					
45	Intermediate material	m3	9		
46	Hard rock material	m3	43		
<u>Valves, etc.:</u>					
47	110mm Flanged Stainless steel gate valve with teflon seat	No	1		
48	160mm Flanged Stainless steel gate valve with teflon seat	No	3		
<u>The following in fire hydrant:</u>					
49	Purpose made Class 24 polypropylene hydrant tee in accordance with SABS 1315, with in line leg 400mm long x 110mm diameter and vertical leg 1000mm long x 90mm diameter with stub flange cut to length on site and fusion welded on, complete with grade 316 stainless steel flange 203mm diameter four times holed	No	1		
50	Cast iron fire hydrant valve complete with male quick coupling connection, valve spindle, etc.	No	1		
Carried to Collection				R	
Section No. 2					
Bill No. 13					
Plumbing & drainage (Provisional)					
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51	Hydrant chamber internal size 400 x 325 x 525mm high, formed of half brick sides on 75mm Class 20/19 concrete base and with Type 5 manhole cover and frame in accordance with SABS 558-1973 bedded into Class 20/19 reinforced concrete surround 115mm wide x 125mm deep	No	1		
	<b>Testing:</b>				
52	Testing of the entire fire water reticulation installation		Item		
	<b><u>STORMWATER DISPOSAL</u></b>				
53	Break into existing manhole and make connections	No	5		
	<b><u>Removal of existing services and fittings that might be within the confines of the site and not evident at the time of tender (any services encountered and removed are to be quantified and signed off by the relevant consultant):</u></b>				
54	Removal of existing cast iron pipes not exceeding 300mm diameter at a depth not exceeding 2m deep including all necessary backfilling (LI)	m	10		
55	Removal of existing cast iron pipes not exceeding 300mm diameter at a depth exceeding 2m and not exceeding 4m deep including all necessary backfilling (LI)	m	10		
56	Removal of existing cast iron pipes exceeding 300mm and not exceeding 500mm diameter at a depth not exceeding 2m deep including all necessary backfilling (LI)	m	10		
57	Removal of existing cast iron pipes exceeding 300mm and not exceeding 500mm diameter at a depth exceeding 2m and not exceeding 4m deep including all necessary backfilling	m	10		
58	Removal of existing PVC pipes not exceeding 300mm diameter at a depth not exceeding 2m deep including all necessary backfilling (LI)	m	10		
	<b>Carried to Collection</b>			R	
	Section No. 2				
	Bill No. 13				
	Plumbing & drainage (Provisional)				
	<b>Prepared by:</b>				
	<b>Cepma Engineering Worx (Pty) Ltd</b>				

59	Removal of existing PVC pipes not exceeding 300mm diameter at a depth exceeding 2m and not exceeding 4m deep including all necessary backfilling	m	10		
60	Removal of existing concrete pipes not exceeding 300mm diameter at a depth not exceeding 2m deep including all necessary backfilling (LI)	m	10		
61	Removal of existing concrete pipes not exceeding 300mm diameter at a depth exceeding 2m and not exceeding 4m deep including all necessary backfilling	m	10		
62	Removal of precast manholes not exceeding 1m girth and at a depth not exceeding 2m deep including all necessary backfilling (LI)	No	1		
63	Removal of precast manholes not exceeding 1m girth and at a depth exceeding 2m and not exceeding 4m deep including all necessary backfilling	No	1		
<b><u>Class 450 concrete pipes:</u></b>					
64	300mm Diameter pipes laid in and including trenches not exceeding 1,0m deep (LI)	m	20		
65	300mm Diameter pipes laid in and including trenches exceeding 1,0m and not exceeding 2,0m deep (LI)	m	5		
66	375mm Diameter pipes laid in and including trenches not exceeding 1,0m deep (LI)	m	40		
67	375mm Diameter pipes laid in and including trenches exceeding 1,0m and not exceeding 2,0m deep (LI)	m	30		
68	375mm Diameter pipes laid in and including trenches exceeding 2,0m and not exceeding 3,0m deep	m	10		
69	375mm Diameter pipes laid in and including trenches exceeding 3,0m and not exceeding 4,0m deep	m	15		
70	375mm Diameter pipes laid in and including trenches exceeding 4,0m and not exceeding 5,0m deep	m	5		
<b>Carried to Collection</b>				R	
Section No. 2					
Bill No. 13					
Plumbing & drainage (Provisional)					
Prepared by:					
Cepma Engineering Worx (Pty) Ltd					



71	375mm Diameter pipes laid in and including trenches exceeding 5,0m and not exceeding 6,0m deep	m	15		
72	450mm Diameter pipes laid in and including trenches exceeding not exceeding 1,0m deep (LI)	m	30		
73	450mm Diameter pipes laid in and including trenches exceeding 1,0m and not exceeding 2,0m deep (LI)	m	20		
74	450mm Diameter pipes laid in and including trenches exceeding 2,0m and not exceeding 3,0m deep	m	10		
75	600mm Diameter pipes laid in and including trenches exceeding not exceeding 1,0m deep (LI)	m	27		
76	600mm Diameter pipes laid in and including trenches exceeding 1,0m and not exceeding 2,0m deep (LI)	m	27		
77	600mm Diameter pipes laid in and including trenches exceeding 2,0m and not exceeding 3,0m deep	m	9		
78	600mm Diameter pipes laid in and including trenches exceeding 3,0m and not exceeding 4,0m deep	m	9		
79	600mm Diameter pipes laid in and including trenches exceeding 4,0m and not exceeding 5,0m deep	m	9		
80	600mm Diameter pipes laid in and including trenches exceeding 5,0m and not exceeding 6,0m deep	m	9		
81	750mm Diameter pipes laid in and including trenches exceeding not exceeding 1,0m deep	m	25		
82	750mm Diameter pipes laid in and including trenches exceeding 1,0m and not exceeding 2,0m deep	m	25		
83	750mm Diameter pipes laid in and including trenches exceeding 2,0m and not exceeding 3,0m deep	m	7		
84	750mm Diameter pipes laid in and including trenches exceeding 3,0m and not exceeding 4,0m deep	m	7		
Carried to Collection				R	
Section No. 2					
Bill No. 13					
Plumbing & drainage (Provisional)					
Prepared by:					
Cepma Engineering Worx (Pty) Ltd					

85	750mm Diameter pipes laid in and including trenches exceeding 4,0m and not exceeding 5,0m deep	m	7		
86	750mm Diameter pipes laid in and including trenches exceeding 5,0m and not exceeding 60m deep	m	9		
87	900mm Diameter pipes laid in and including trenches exceeding not exceeding 1,0m deep	m	60		
88	900mm Diameter pipes laid in and including trenches exceeding 1,0m and not exceeding 2,0m deep	m	45		
89	900mm Diameter pipes laid in and including trenches exceeding 2,0m and not exceeding 3,0m deep	m	15		
90	900mm Diameter pipes laid in and including trenches exceeding 3,0m and not exceeding 4,0m deep	m	30		
<b><u>Extra over trench and base excavations in soft material for:</u></b>					
91	Intermediate material	m3	184		
92	Hard rock material	m3	922		
<b><u>Unplasticised polyvinyl chloride (uPVC) pipes:</u></b>					
93	200mm Diameter Pipes laid in and including trenches not exceeding 1,0m deep (LI)	m	160		
<b>Carried to Collection</b>				R	
Section No. 2					
Bill No. 13					
Plumbing & drainage (Provisional)					
<b>Prepared by:</b>					
<b>Cepma Engineering Worx (Pty) Ltd</b>					

Sumps, catchpits, inspection chambers, etc. (gratings and covers elsewhere) with one brick walls, finished with 10mm thick plaster and brickforce built in every second layer, the walls build on 150mm reinforced concrete footing, projecting 100mm all round, finished with 500mm concrete benching smoothed down to channels and 150mm thick reinforced concrete cover slab smoothed down to falls including all excavations, filling, ramming, formwork, all necessary bends, junctions, etc.:

94	Catchpit size 400 x 400mm exceeding 1000mm and not exceeding 1000mm deep internally with 600 x 600mm opening rebated for frame of dished grating built in (grating and frame elsewhere measured) (LI)	No	40
95	Catchpit size 1000 x 1000mm exceeding 1000mm and not exceeding 1000mm deep internally with 600 x 600mm opening rebated for frame of dished grating built in (grating and frame elsewhere measured) (LI)	No	1
96	Catchpit size 1000 x 1000mm exceeding 1500mm and not exceeding 2000mm deep internally with 600 x 600mm opening rebated for frame of dished grating built in (grating and frame elsewhere measured) (LI)	No	19
97	Catchpit size 1000 x 1000mm exceeding 2000mm and not exceeding 3000mm deep internally with 600 x 600mm opening rebated for frame of dished grating built in (grating and frame elsewhere measured)	No	24
98	Catchpit size 1000 x 1000mm exceeding 4000mm and not exceeding 5000mm deep internally with 600 x 600mm opening rebated for frame of dished grating built in (grating and frame elsewhere measured)	No	2
99	Catchpit size 1000 x 1000mm exceeding 5000mm and not exceeding 6000mm deep internally with 600 x 600mm opening rebated for frame of dished grating built in (grating and frame elsewhere measured)	No	2

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R

Section No. 2

Bill No. 13

Plumbing & drainage (Provisional)

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**Gratings, covers, etc.:**

100 600 x 600mm "Saint Gabion - Code 2130" or similar and approved medium duty lid and frame with frame bedded in 3:1 cement mortar and cover sealed in tallow

No 48

101 350 x 350mm "Saint Gabion - Code 2130" or similar and approved medium duty lid and frame with frame bedded in 3:1 cement mortar and cover sealed in tallow

No 40

**Headwall outlets:**

Demolition of existing headwall outlets comprising of concrete footing, 230mm brickwalls and cartaway off site:

102 Removal of existing headwall outlet size. 750mm ling x 1500mm high complete with concrete base size. 1000mm long x 1500mm wide x 350mm thick

No 2

New headwall comprising of 30Mpa/19mm stone concrete footings and 230mm brick walls faced on both sides complete with all necessary excavations, cartaway, backfilling, etc. all inaccordance with the Engineer's specifications:

103 Headwall outlet size. 2150mm long x 1500mm high complete with concrete base size. 3500mm long x 1500mm wide x 375mm thick (LI)

No 1

104 Headwall outlet size. 4150mm long x 1500mm high complete with concrete base size. 7500mm long x 1500mm wide x 375mm thick (LI)

No 1

**GABIONS AND PITCHING**

Excavate for gabions and mattresses in soft materials not exceeding 2m deep and place in embankment for:

105 Gabion boxes (LI)

m3 55

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R

Section No. 2

Bill No. 13

Plumbing & drainage (Provisional)

Prepared by:

Cepma Engineering Worx (Pty) Ltd

106	Reno mattresses (LI)	m3	110
	<u>Extra over excavations for gabions and mattresses in soft material for:</u>		
107	Intermediate material	m3	17
108	Hard rock material	m3	83
109	Class A boulder material	m3	25
110	Class B boulder material	m3	25
	<u>Preparation of surfaces for bedding of gabions:</u>		
111	Surface preparation for bedding of gabions (LI)	m2	55
	<u>Gabion baskets of approved PVC coated twisted galvanised mesh wire size. 80 x 100mm opening and stone of size ranging between 100mm and 250mm girth supplied and installed all in accordance with the Engineer's specifications:</u>		
112	Foundation mattresses of depth 300mm with diaphragms providing 2000mm x 1000mm cells (LI)	m3	20
113	Gabions of section 1000mm x 1000mm for walls (LI)	m3	30
	<u>Geotextile (non-woven needle punched, 340 g/m<sup>2</sup>):</u>		
114	Below foundation mattresses (LI)	m2	70
115	On slope behind wall (LI)	m2	65
	<u>Testing:</u>		
116	Testing of the entire stormwater reticulation installation.	Item	

**SUBSOIL DRAINS**

The following in subsoil drains to retaining walls, basement floors, etc.:

Carried to Collection

Section No. 2

Bill No. 13

Plumbing & drainage (Provisional)

Prepared by:

Cepma Engineering Worx (Pty) Ltd

R

-197-



	<b><u>0,5mm Aluminium lining to concrete water troughs including all necessary attachments, etc. to ensure a water tight installation:</u></b>				
128	Aluminium lining shaped to fit the girth of the concrete gutter system	m2	442		
	<b><u>uPVC pipes:</u></b>				
129	110mm Diameter pipes	m	167		
130	Extra over for bends	No	50		
131	160mm Diameter pipes	m	315		
132	Extra over for outlets	No	45		
133	Extra over for bends	No	45		
134	Extra over for 160mm dia. rainwater shoe	No	45		
	<b><u>Full bore cast iron outlets:</u></b>				
135	100mm 90 degree flat grate full bore outlets	No	50		
	<b><u>SANITARY FITTINGS</u></b>				
	Sanitary fittings complete with all waste unions, plugs, chains, etc. including building into or fixing to building structure				
	<b><u>"Vaal" sanitary ware or similar approved ceramic vitreous china wash hand basins installed in accordance with the manufacturer's specifications:</u></b>				
136	"Hygia" Napless basin set code 703611 fitted complete with 32mm chromium plated waste fitting including standing overflow tube, fitted on and including two concealed brackets plugged and screwed to wall	No	40		
Carried to Collection				R	
Section No. 2					
Bill No. 13					
Plumbing & drainage (Provisional)					
Prepared by:					
Cepma Engineering Worx (Pty) Ltd					

137	"Laufen Pro S" white wall hung basin with left hand tap hole basin size. 480x280x150mm (Sku. LAWHPR15955) supplied and installed complete with basin fixations (Sku. BEZB2904), "IDT" anti vandal basin waste (Sku. TVAC1033/CH) all inaccordance with the manufacturer's specifications	No	12		
138	"Laufen Pro S" compact wall hung basin size. 550x380x170mm (Sku. LAWHPR18958) supplied and installed complete with basin fixations (Sku. BEZB2904), "IDT" anti vandal basin waste (Sku. TVAC1033/CH) installed all inaccordance with the manufacturer's specifications	No	5		
<b><u>Water closets:</u></b>					
139	"Marley" Gypsy vandal resistant pan as GYP/VA.R1/01 and matching 9 litre cistern complete with lid and fitments including heavy duty white "luxury" seat and cover	No	14		
140	"Vaal Protea paraplegic suite code 7502" vitreous china pan and matching 9 litre cistern "710631" complete with purpose made heavy duty with seat and cover and purpose made chrome plated side flush lever, fittings, etc.	No	5		
<b><u>Urinals:</u></b>					
141	"Barron" bowl urinal Model BE Model SCL shell with fittings code 356005 complete with 4,5 litre code 172501 automatic flushing syphonic cistern, code 1722Z1 flushpipe and fittings, code 8787Z0 domical waste, code 8543 flat back spreader and code 8127Z0 hanger brackets	No	4		
<b><u>1.2mm Thick "Franke" or similar approved grade 304 stainless steel sinks, wash troughs, etc:</u></b>					
142	Model CMPX594 wall hung WC pan for disabled use complete with push button flush plate and valve for WC AQRM555 and "Geberit Kombifix" concealed cistern	No	20		
<b>Carried to Collection</b>				R	
Section No. 2					
Bill No. 13					
Plumbing & drainage (Provisional)					
Prepared by:					
Cepma Engineering Worx (Pty) Ltd					



143	Model HDTX597 Heavy duty wall and floor mounted WC pan complete with push button flush plate and valve for WC AQRM555 and "Geberit Kombifix" concealed cistern	No	3		
144	Model EC6 1830 x 685mm combination bedpan and washup sink with 11 litre high level stainless steel cistern and flush pipe supplied complete with flush valves, mixers, etc and unit on 40mm stainless steel gallows bracket and front legs with adjustable flanged foot pieces fixed to floors	No	2		
145	'CMP Model EL' Sluice sink size 1130 x 685mm, with flush valve and integral splashback all on 40mm stainless steel gallows bracket and front legs with adjustable flanged foot pieces fixed to floors complete with 11 litre high level stainless steel cistern and flush pipe	No	3		
146	Model LDS 600 x 500 x 258mm hospital drip sink unit fixed to wall with 2(No.) 40 x 20mm Square stainless steel wall fixing brackets	No	5		
147	1200 x 460mm Stainless steel model contract drop-on sink and drainer with single end bowl with 38mm pvc waste and plug with handle including cutting one taphole and "Spazio 2" plumbing kit and approved 15mm taphole sink mixer with overarm swivel outlet, mounting kit and angle valves with approved chrome plated 310 sink waste and approved chrome plated 309-40 anti-theft plug with spindle. (Sink unit elsewhere measured)	No	3		
148	1200 x 460mm Stainless steel model contract drop-on sink and drainer with double end bowl with 2(No.) 38mm pvc waste and plug with handle including cutting one taphole and "Spazio 2" plumbing kit and approved 15mm taphole sink mixer with overarm swivel outlet, mounting kit and angle valves with approved chrome plated 310 sink waste and approved chrome plated 309-40 anti-theft plug with spindle. (Sink unit elsewhere measured)	No	2		
149	2000 x 900 x 88mm deep purpose made shower tray	No	2		
Carried to Collection				R	
Section No. 2					
Bill No. 13					
Plumbing & drainage (Provisional)					
Prepared by:					
Cepma Engineering Worx (Pty) Ltd					



-201-

FACILITY: General Justice Gizenga Mpanza Regional Hospital  
 DESCRIPTION: New 28 Bedded Male & Female  
 Inpatient & Outpatient Mental Health Unit

<b><u>"Cobra Watertech":</u></b>					
161	32mm 301CP slotted basin waste union	No	11		
162	32mm Chrome plated unslotted basin waste union (no chain or stay) (code 317-32)	No	40		
<b><u>"IDT":</u></b>					
163	32x40mm Chrome bottle trap (Sku. TVAC9020/CH)	No	17		
<b><u>TRAPS, ETC</u></b>					
<b><u>Butyl rubber:</u></b>					
164	38mm uPVC Sink deepseal "P" or "S" trap for double bowl sink	No	2		
<b><u>"Cobra Watertech"</u></b>					
165	32mm 340 CP bottle trap	No	44		
166	32mm 345/50 CP bottle trap	No	43		
167	40mm VA 2.341 shower "P" trap	No	15		
<b><u>Approved Grade 304 Stainless steel floor drains resistant to acid corrosion and staining complete with integrated sludge box for the retention of coarse slurry with the entire unit easy to dismantle complete with water seal to ensure odour-free operation installed complete with all necessary lug, etc. in floors all in accordance with the manufacturer's specifications:</u></b>					
168	RO 280H NW100 size. 310mm Dia. x 360mm deep floor drain with circular aperture with 4.5 litre/Second flow rate and 1500kg load capacity complete with removable square grating, removable stainless steel sieve tray and 280mm Diameter holed cover plate with the unit having a single bottom vertical outlet 50mm long suitable for 110mm diameter pipe	No	20		
<b>Carried to Collection</b>				R	
Section No. 2					
Bill No. 13					
Plumbing & drainage (Provisional)					
<b>Prepared by:</b>					
<b>Cepma Engineering Worx (Pty) Ltd</b>					

**SANITARY PLUMBING****Extra over uPVC pipes for fittings:**

169	110mm Diameter pan connector	No	56
170	110mm P trap	No	34

**TAPS, VALVES, ETC.****Taps, valves, etc:**

171	"Franke" Model. AQUA629 (AF) electronic self closing shower head complete with electronic self closing valve for installation into walls for connection to pre-mixed warm or cold water including adjustable installation kit for fitting into walls with adhesive flange AQUA605	No	10
172	15mm 128 CP "Star" underwall pattern stopcock	No	191
173	"Cobra Carina" or similar and approved 15mm square pattern pillar taps with chrome plated aerator outlet (Code 114-15)	No	12
174	"Cobra Carina" or similar and approved 15mm elbow action pillar taps with chrome plated aerator outlet (Code 505-21)	No	1
175	15mm Elbow action medical wall type mixer with fixed straight outlet, jet and spray rose and backplate as "Cobra 513-21."	No	43
176	15mm Elbow medical wall type mixer with fixed spout	No	14
177	15mm Sink pillar mixer unit with swivel outlet	No	5
178	'Cobra FJ2.100' 22mm Flushmaster Junior toilet back entry flush valve set, including FJT1.1 flush pipe and connector	No	11
179	15mm Dia. "Aquamix" thermostatic mixing valve installed all in accordance with the manufacturer's specifications	No	43

Carried to Collection

R

Section No. 2

Bill No. 13

Plumbing &amp; drainage (Provisional)

Prepared by:

Cepma Engineering Worx (Pty) Ltd



180	15mm threaded bib tap	No	1	
	<b><u>Testing:</u></b>			
181	Testing the soil water reticulation installation		Item	
182	Testing of entire stormwater reticulation installation		Item	
183	Testing of the entire fire water reticulation installation		Item	
Carried to Collection				R
Section No. 2				
Bill No. 13				
Plumbing & drainage (Provisional)				
Prepared by:				
Cepma Engineering Worx (Pty) Ltd				

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

Section No. 2

Bill No. 13

Plumbing &amp; drainage (Provisional)

**COLLECTION**

Total Brought Forward from Page No.

Page  
No

Amount

181

182

183

184

185

186

187

188

189

190

191

192

193

194

195

196

197

198

Carried Forward

R

Section No. 2

Bill No. 13

Plumbing &amp; drainage (Provisional)

Prepared by:

Cepma Engineering Worx (Pty) Ltd





Item  
No

Quantity

Rate

Amount

**BILL NO. 14****PAINTWORK**Descriptions and preambles:

1. For preambles see "Standard Preambles to all Trades Rev 3 - DoH 2009"
2. Contractor is referred to Trades to follow hereafter for preambles and full descriptions of materials and items not fully described in this Trade and which shall apply equally to work in this Trade, unless otherwise described

Trade Names and Proprietary Products:

1. All descriptions or clauses where trade names or proprietary products are specified, are deemed to include the phrase "or other approved"

**SUPPLEMENTARY PREAMBLES**Reference to drawings and project specification documentation:

1. Contractors to make reference to drawings and project specification documentation that forms part of these Bills of Quantities for all installations and procedures required for the installation or execution of these works

Carried to Collection

R

Section No. 2

Bill No. 14

Paintwork

Prepared by:

Cepma Engineering Worx (Pty) Ltd

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male & Female  
Inpatient & Outpatient Mental Health UnitMaterial samples:

1. Before commencement of any work, the contractor will be required to timeously supply a sample of the material to be used to the Principal Agent for approval at no cost
2. Material installed without prior approval from the Principal Agent will be removed at the contractor's cost

Carried to Collection

R

Section No. 2

Bill No. 14

Paintwork

Prepared by:

Cepma Engineering Worx (Pty) Ltd

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

General:

1. All details and dimensions shown on the drawings are subject to confirmation on site and during construction. All dimensions and levels are to be confirmed on site before commencement of the works
2. All levels on structural drawings refer to the top of concrete, steel, etc. unless otherwise indicated
3. The Contractor is to comply at all times with all the relevant municipal regulations, conditions of approval and bylaws in the area of the site and is to ensure that a set of approved building plans is on site at all times
4. All specification documentation, drawings, etc. shall be available on site at all times
5. The Contractor shall at all times be fully responsible for quality control on site ensuring strict compliance with all drawings, details and specifications issued by the relevant design consultant. The Contractor shall submit a quality control plan for each portion of work prior to the commencement for acceptance. The works shall only commence on acceptance of the quality plan by the relevant design consultant
6. All products specified for use are to be used in strict accordance with the manufacturer's specifications and where applicable by an approved manufacturer's applicator or installer
7. Products different to those specified in the specification documentation shall only be used with prior approval of the relevant design consultant

Carried to Collection

R

Section No. 2

Bill No. 14

Paintwork

Prepared by:

Cepma Engineering Worx (Pty) Ltd



Samples:

1. A sample of any approved product must be delivered to site for sign off by the relevant design consultant or Principal Agent prior to commencement of the installation

**ON PLASTER, ETC.**

**Prepare and apply one coat alkali resistant primer, one coat alkaline proof under coat and two coats interior quality "Prominent Ultra" Matt scratch, water and steam resistant paint as detailed by the Architect and applied in strict accordance to the manufacturer's specifications:**

- |   |  |    |       |
|---|--|----|-------|
| 1 | Plastered walls and columns internally (LI)                    | m2 | 6,078 |
| 2 | Smooth off-shutter concrete ceilings and beams internally (LI) | m2 | 1,696 |

**Prepare and apply one coat alkali resistant primer, one coat alkaline proof under coat and two coats exterior quality "Prominent Ultra" Matt scratch, water and steam resistant paint as detailed by the Architect and applied in strict accordance to the manufacturer's specifications:**

- |   |  |    |     |
|---|--|----|-----|
| 3 | Plastered walls and columns externally (LI)                    | m2 | 14  |
| 4 | Smooth off-shutter concrete ceilings and beams externally (LI) | m2 | 763 |

**Prepare and apply one coat alkali resistant primer, one coat alkaline proof under coat and two coats interior quality "Prominent Ultra" Gloss scratch, water and steam resistant paint as detailed by the Architect and applied in strict accordance to the manufacturer's specifications:**

- |   |   |    |       |
|---|---|----|-------|
| 5 | Plastered walls and columns internally (LI) | m2 | 2,091 |
|---|---|----|-------|

Carried to Collection

R

Section No. 2

Bill No. 14

Paintwork

Prepared by:

Cepma Engineering Worx (Pty) Ltd

6	Smooth off-shutter concrete ceilings and beams internally (LI)	m2	969		
	<u>Prepare and apply one coat alkali resistant primer, one coat alkaline proof under coat and two coats exterior quality "Prominent Ultra" Gloss scratch, water and steam resistant paint as detailed by the Architect and applied in strict accordance to the manufacturer's specifications:</u>				
7	Smooth off-shutter concrete ceilings and beams externally (LI)	m2	24		
	<u>ON NEW WOOD</u>  <u>Prepare, prime with general purpose wood primer as SABS Specification 678 Type III and apply one undercoat as SABS Specification 681 Type III, and apply two finishing coats of polyurethane alkyd enamel paint of gloss designation on wood:</u>				
8	Doors (LI)	m2	819		
9	Door frames (LI)	m2	31		
	<u>Prepare and stop with tinted stopping and apply three coats of clear sheen varnish including sanding down of wood and burnishing with steel wool between coats on wood:</u>				
10	General surfaces (LI)	m2	168		
	<u>ON NEW METAL</u>  <u>Two coats bitumen paint:</u>				
11	Backs of steel door frames, linings, etc. (LI)	m2	177		

Carried to Collection

R

Section No. 2

Bill No. 14

Paintwork

Prepared by:

Cepma Engineering Worx (Pty) Ltd

	<u>Prepare surfaces and remove all loose material, dust, grease, salts and contamination with 'Plascon Galvanised Iron leaner G1C1', rinse with water and bristle brush or 'Scotch Brite' pads, apply one coat 'Plascon Epiwash Chromate Metal Primer AW1255' and two coats 'Plascon Plascothene Polyurethane Enamel' paint on galvanised steel:</u>				
12	On door (LI)	m2	34		
13	On door frames (LI)	m2	24		
14	On general surfaces (LI)	m2	36		
	<u>Prepare surfaces and remove all loose material, dust, grease, salts and contamination with 'Plascon Galvanised Iron leaner G1C1', rinse with water and bristle brush or 'Scotch Brite' pads, apply one coat 'Plascon Epiwash Chromate Metal Primer AW1255' and two coats 'ANP 3055' Matt Charcoal or 'PIS 71149' Matt Charcoal paint all in accordance with the manufacturer's specifications:</u>				
15	On balustrades, railings, etc. (LI)	m2	69		
	<u>Prepare surfaces and remove all loose material, dust, grease, salts and contamination with 'Plascon Galvanised Iron leaner G1C1', rinse with water and bristle brush or 'Scotch Brite' pads, apply one coat 'Plascon Epiwash Chromate Metal Primer AW1255' and two coats PVC paint on steel:</u>				
16	On door (LI)	m2	21		
17	On door frames (LI)	m2	9		
Carried to Collection				R	
Section No. 2					
Bill No. 14					
Paintwork					
Prepared by:					
Cepma Engineering Worx (Pty) Ltd					



FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male & Female  
Inpatient & Outpatient Mental Health Unit

Section No. 2

Bill No. 14

Paintwork

**COLLECTION**

Total Brought Forward from Page No.

Page  
No

Amount

207

208

209

210

211

212

Carried Forward to Summary of Section No. 2

R

Section No. 2

Bill No. 14

Paintwork

Prepared by:

Cepma Engineering Worx (Pty) Ltd

Item  
No

Quantity

Rate

Amount

**BILL NO. 15****EXTERNAL WORKS (PROVISIONAL)**Descriptions and preambles:

1. For preambles see "Standard Preambles to all Trades Rev 3 - DoH 2009"
2. Contractor is referred to Trades to follow hereafter for preambles and full descriptions of materials and items not fully described in this Trade and which shall apply equally to work in this Trade, unless otherwise described

Trade Names and Proprietary Products:

1. All descriptions or clauses where trade names or proprietary products are specified, are deemed to include the phrase "or other approved"

**SUPPLEMENTARY PREAMBLES**Reference to drawings and project specification documentation:

1. Contractors to make reference to drawings and project specification documentation that forms part of these Bills of Quantities for all installations and procedures required for the installation or execution of these works

Carried to Collection

R

Section No. 2

Bill No. 15

External works (Provisional)

Prepared by:

Cepma Engineering Worx (Pty) Ltd

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male & Female  
Inpatient & Outpatient Mental Health UnitMaterial samples:

1. Before commencement of any work, the contractor will be required to timeously supply a sample of the material to be used to the Principal Agent for approval at no cost
2. Material installed without prior approval from the Principal Agent will be removed at the contractor's cost

Carried to Collection

R

Section No. 2

Bill No. 15

External works (Provisional)

Prepared by:

Cepma Engineering Worx (Pty) Ltd



General:

1. All details and dimensions shown on the drawings are subject to confirmation on site and during construction. All dimensions and levels are to be confirmed on site before commencement of the works
2. All levels on structural drawings refer to the top of concrete, steel, etc. unless otherwise indicated
3. The Contractor is to comply at all times with all the relevant municipal regulations, conditions of approval and bylaws in the area of the site and is to ensure that a set of approved building plans is on site at all times
4. All specification documentation, drawings, etc. shall be available on site at all times
5. The Contractor shall at all times be fully responsible for quality control on site ensuring strict compliance with all drawings, details and specifications issued by the relevant design consultant. The Contractor shall submit a quality control plan for each portion of work prior to the commencement for acceptance. The works shall only commence on acceptance of the quality plan by the relevant design consultant
6. All products specified for use are to be used in strict accordance with the manufacturer's specifications and where applicable by an approved manufacturer's applicator or installer
7. Products different to those specified in the specification documentation shall only be used with prior approval of the relevant design consultant

Carried to Collection

R

Section No. 2

Bill No. 15

External works (Provisional)

Prepared by:

Cepma Engineering Worx (Pty) Ltd

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

Shop drawings:

1. Shop drawings are to be provided for all elements that are to be fabricated by the contractor's fabricator or supplier
2. All shop drawings are to be submitted to the relevant design consultant or Principal Agent for approval prior to the commencement of fabrication
3. Any fabricated elements installed without prior approval by the relevant design consultant or Principal Agent will be removed at the contractor's cost

Asbestos removal:

1. Asbestos removal is to be done by a certified service provider all in accordance with the regulations and a way bridge certificate from an approved dump will be required for certification of payment for these items

Samples:

1. A sample of any approved product must be delivered to site for sign off by the relevant design consultant or Principal Agent prior to commencement of the installation

**TEMPORARY BARRIERS, SCREENS, ETC.****Temporary barriers, screens, etc. including removal:**

- 1 External hoarding 2,5m high formed with new 0,47mm thick non galvanised painted one side corrugated sheeting fixed onto and including 76 x 50mm purlins with bonded washers onto 200mm diameter treated timber gumpole posts at minimum 2m centres including all necessary excavations and concrete for bases (LI)

m

100

Carried to Collection

R

Section No. 2

Bill No. 15

External works (Provisional)

Prepared by:

Cepma Engineering Worx (Pty) Ltd

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

2	Double gate 6000 x 2100mm high, with 51mm diameter x 2mm framework with one brace, covered with 50mm weld mesh, fixed with 3.15mm galvanised wire to framed framing, complete with barrel bolt, heavy duty padlock, and posts, etc.	No	2		
<b><u>DEMOLITIONS, ETC.</u></b>					
<b><u>Demolish and remove:</u></b>					
3	Demolish and remove single storey building size. 8,00m x 5,00m x 2,54m high on plan comprising of double pitched roof, concrete surface bed, one brick external and internal walls, glazed steel windows, timber door frame, wooden door and asbestos roof covering on timber trusses	No	1		
<b><u>Breaking up and removing reinforced concrete including cutting off and removing reinforcement and carting off of rubble to stock piles on site:</u></b>					
4	Surface beds, etc.	m3	5		
<b><u>Breaking down and removing brick or block work, etc. and carting off of rubble to stock piles on site:</u></b>					
5	One brick walls	m2	39		
<b><u>Break up and remove mass concrete and carting off of rubble to stock piles on site:</u></b>					
6	In Columns, beams, footings, etc.	m3	7		
<b><u>RELOCATION OF EXISTING STRUCTURES</u></b>					
<b><u>Careful removal and relocation of existing timber wendy house to a new position within the confines of the hospital premises and install complete with all necessary bolting, and anchoring all in accordance with the Engineer's specifications (Pads elsewhere measured):</u></b>					
7	Wendy house size. 1800mm x 2400mm x 2100mm high	No	1		

Carried to Collection

R

Section No. 2

Bill No. 15

External works (Provisional)

Prepared by:

Cepma Engineering Worx (Pty) Ltd



FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male & Female  
Inpatient & Outpatient Mental Health Unit

<u>Relocating of existing containers to a new position within the confines of the hospital premises and install complete with all necessary bolting, and anchoring all in accordance with the Engineer's specifications (Pads elsewhere measured):</u>			
8	Standard 12m container size. 12,05 x 2,35 x 2.69m high	No	3
9	Standard 6m container size. 5,89 x 2,35 x 2.69m high	No	2
<u>Break up and remove mass concrete and carting off of rubble to stock piles on site:</u>			
10	In Columns, beams, footings, etc. (LI)	m3	14
<u>Soft excavation:</u>			
11	For holes not exceeding 2,0m deep (LI)	m3	9
<u>Extra over trench and base excavations in soft material for:</u>			
12	Intermediate material	m3	1
13	Hard rock material	m3	1
<u>Excavation sundries:</u>			
14	Risk of collapse to sides of trenches, bases, pits, etc. not exceeding 1.50m deep	m2	66
<u>Keeping excavations free of water:</u>			
15	Keeping excavations free of water other than subterranean water	Item	
<u>Compaction of surfaces:</u>			
16	Scarify to a depth of 150mm, level and compact earth under foundations, etc. to 93% Mod AASHTO density (LI)	m2	8
Carried to Collection			R
Section No. 2			
Bill No. 15			
External works (Provisional)			
Prepared by:			
Cepma Engineering Worx (Pty) Ltd			

	<u>Extra over all excavations for carting away:</u>		
17	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	23
	<u>Apply an approved soil insecticide in strict accordance with manufacturers specifications and SABS 1164-1165 (Fumigation company to offer a 5 year guarantee for the application):</u>		
18	Bottom & sides of Bases, holes, etc.	m2	74
	<u>Class 15/19 concrete:</u>		
19	In Blinding (LI)	m3	0.4
	<u>Class 30Mpa/19mm concrete:</u>		
20	Pad footings cast against excavated surfaces (Provisional) (LI)	m3	13
	<u>Test cubes:</u>		
	For each pour tested, 3(No.) cubes will be expected to account for 7 days, 14 days and 28 day strengths all in accordance with the Engineer's specifications		
21	Making and testing 150 x 150 x 150mm concrete strength test cube (Provisional)	No	3
	<u>Rough formwork to sides:</u>		
22	Pad footings (Provisional)	m2	92
	<u>Mild / High tensile steel reinforcement:</u>		
23	Reinforcement bars (All diameters provisional)	t	1

**SITE CLEARANCE, REMOVAL OF TREES, ETC.**

Carried to Collection

R

Section No. 2

Bill No. 15

External works (Provisional)

Prepared by:

Cepma Engineering Worx (Pty) Ltd

**Site Clearance:**

24	Clear area of site of all rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200 mm girth, bush, etc., including re-clearing of any subsequent vegetation growth during the contract period as considered necessary by the Employer and removing all material from site	m2	6,408
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**BULK EXCAVATIONS****Excavations, etc.:**

25	Excavate average 100 mm deep over developed areas of site to remove topsoil, including depositing in spoil heaps on site for later re-use	m2	908
26	"Soft excavations" over sloping site to open face not exceeding 2m deep extreme and depositing excavated material in fill areas to form terraces, formations, etc., including risk of collapse, haulage not exceeding 0,5 km from excavations, compacting fill areas to 95% Mod. AASHTO in layers not exceeding 150 mm and trimming to banks	m3	340
27	"Soft excavations" over sloping site to open face exceeding 2m and not exceeding 4m deep extreme and depositing excavated material in fill areas to form terraces, formations, etc., including risk of collapse, haulage not exceeding 0,5 km from excavations, compacting fill areas to 95% Mod. AASHTO in layers not exceeding 150mm and trimming to banks	m3	60
28	Extra over all excavation for carting away surplus excavated material from site to a dumping site to be located by the Contractor (No allowance made for bulking)	m3	3,750
29	Extra over "Soft excavations" for excavations in intermediate material	m3	415
30	Extra over "Soft excavations" for excavations in hard rock	m3	970

Carried to Collection

R

Section No. 2

Bill No. 15

External works (Provisional)

Prepared by:

Cepma Engineering Worx (Pty) Ltd



FACILITY: General Justice Gizenga Mpanza Regional Hospital  
 DESCRIPTION: New 28 Bedded Male & Female  
 Inpatient & Outpatient Mental Health Unit

31	Class A boulder material	m3	104
32	Class B boulder material	m3	42
	<b><u>G9 fill material supplied by the contractor and compacted in layers not exceeding 150mm to 93% ModAASHTO:</u></b>		
33	Under floors, steps, pavings, etc.	m3	2,165
	<b><u>LANDSCAPING, TURFING, ETC.</u></b>		
	<b><u>Ground preparation:</u></b>		
34	Cultivation and preparation of areas to be planted (LI)	m2	150
	<b><u>Topsoil, compost, lime and fertilizer:</u></b>		
35	Topsoil from commercial sources imported onto site and laid to suite grassing (LI)	m3	20
	<b><u>Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 95% Mod AASHTO density:</u></b>		
36	Backfilling to slopes, etc. (LI)	m3	375
	<b><u>Grassing:</u></b>		
37	Fertilize top 150mm depth of soil with a 8,3% "P-Super phosphate" mixture to a rate of 0,075kg/m <sup>2</sup> and a 3:2:1 (30) fertilizer to a rate of 0,035kg/m <sup>2</sup> before commencing with planting (LI)	m2	150
38	Tropical grass species of Cynoden Indigenous grass or hard wearing grass in sods (instant lawn) suitable for the KwaDukuza area and frost resistant closely packed and top dressed as necessary to even surfaces (LI)	m2	150

**MACHINE PLINTHS, ETC.:**

Carried to Collection

R

Section No. 2

Bill No. 15

External works (Provisional)

Prepared by:

Cepma Engineering Worx (Pty) Ltd

<b><u>Excavation in earth not exceeding 2m deep:</u></b>				
39	For bases, holes, etc. (LI)	m3	17	
<b><u>Extra over trench and base excavations in soft material for:</u></b>				
40	Intermediate material	m3	2	
41	Hard rock material	m3	8	
42	Class A boulder material	m3	0.4	
43	Class B boulder material	m3	0.2	
<b><u>Excavation sundries:</u></b>				
44	Risk of collapse to sides of trenches, bases, pits, etc. not exceeding 1.50m deep	m2	35	
<b><u>Keeping excavations free of water:</u></b>				
45	Keeping excavations free of water other than subterranean water		Item	
<b><u>Compaction of surfaces:</u></b>				
46	Scarify to a depth of 150mm, level and compact earth under foundations, etc. to 93% Mod AASHTO density (LI)	m2	20	
<b><u>Extra over all excavations for carting away:</u></b>				
47	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	17	
<b><u>Apply an approved soil herbicide in strict accordance with manufacturers instructions and SABS 1164-1165 (A five year warranty on the application is required):</u></b>				
48	Bottom & sides of Bases	m2	55	
<b>Carried to Collection</b>				
Section No. 2				
Bill No. 15				
External works (Provisional)				
<b>Prepared by:</b>				
<b>Cepma Engineering Worx (Pty) Ltd</b>				

**FACILITY: General Justice Gizenga Mpanza Regional Hospital**  
**DESCRIPTION: New 28 Bedded Male & Female**  
**Inpatient & Outpatient Mental Health Unit**

<b><u>Class 15Mpa/19mm concrete:</u></b>			
49	In Blinding (LI)	m3	1
<b><u>Class 30MPa/19mm concrete:</u></b>			
50	Plinths (LI)	m3	21
<b><u>Test cubes:</u></b>			
For each pour tested, 3(No.) cubes will be expected to account for 7 days, 14 days and 28 day strengths all in accordance with the Engineer's specifications			
51	Making and testing 150 x 150 x 150mm concrete strength test cube (Provisional)	No	6
<b><u>Class U2 wood float finish to:</u></b>			
52	Surface beds (LI)	m2	20
<b><u>Smooth formwork to sides:</u></b>			
53	Bases (Provisional)	m2	43
<b><u>Mild / High tensile steel reinforcement:</u></b>			
54	Reinforcement bars (all diameters)	t	2
<b><u>High tensile steel welded mesh:</u></b>			
55	Mesh Ref 245	m2	20
<b><u>Untinted granolithic screed to concrete, finished to a smooth and even surface with a steel trowel:</u></b>			
56	Average 30mm thick on floors to falls (LI)	m2	20
<b><u>COVERED WALKWAYS, PAVED AREAS, PARKING AREAS, DRIVEWAYS, RAMPS, STEPS, ETC.:</u></b>			
Carried to Collection			R
Section No. 2			
Bill No. 15			
External works (Provisional)			
Prepared by:			
Cepma Engineering Worx (Pty) Ltd			



<b><u>Preparatory work to existing asphalt:</u></b>				
57	Removal of existing kerbs (LI)	m	215	
<b><u>Removal of existing paving including carting away offsite:</u></b>				
58	Removal of existing pavers average 60mm thick (LI)	m2	1,252	
<b><u>Carefully lifting existing clay or concrete paving and set-aside for re-use:</u></b>				
59	Removal of existing paving (LI)	m2	896	
<b><u>Relaying of existing paving:</u></b>				
60	60mm Paving bricks to falls (LI)	m2	896	
<b><u>Preparation to existing horizontal surfaces:</u></b>				
61	Clean existing concrete slabs, brick paving, etc using a water pressure cleaning system and steel brushes and remove all dirt and loose particles (LI)	m2	896	
<b><u>Soft excavation:</u></b>				
62	To reduce levels not exceeding 2,0m deep (LI)	m3	3,177	
<b><u>Extra over trench and base excavations in soft material for:</u></b>				
63	Intermediate material	m3	320	
64	Hard rock material	m3	1,599	
65	Class A boulder material	m3	116	
66	Class B boulder material	m3	148	
<b><u>Keeping excavations free of water:</u></b>				
67	Keeping excavations free of water other than subterranean water		Item	
<b>Carried to Collection</b>				R
Section No. 2				
Bill No. 15				
External works (Provisional)				
Prepared by:				
Cepma Engineering Worx (Pty) Ltd				

	<u>Earth filling supplied by the contractor, spread and levelled in layers not exceeding 300mm deep and compacted to 93% Mod .AASHTO:</u>				
68	River sand filling under floors (LI)	m3	183		
	<u>G2 fill supplied by the contractor compacted in layers not exceeding 150mm to 98% Mod ASSHTO:</u>				
69	Under floors, steps, pavings, etc. (LI)	m3	46		
	<u>Gravel filling (G5) supplied by the contractor compacted to 97% Mod AASHTO density:</u>				
70	Under floors, steps, pavings, etc. (LI)	m3	766		
	<u>Gravel filling (G5) supplied by the contractor compacted to 95% Mod AASHTO density:</u>				
71	Under floors, steps, pavings, etc. (LI)	m3	117		
	<u>G7 fill material supplied by the contractor and compacted in layers not exceeding 200mm to 95% Mod AASHTO using a 5 ton vibratory roller:</u>				
72	Under floors, steps, pavings, etc. (LI)	m3	764		
	<u>G9 fill material supplied by the contractor and compacted in layers not exceeding 150mm to 93% ModAASHTO:</u>				
73	Under floors, steps, pavings, etc. (LI)	m3	916		
	<u>Compaction of surfaces:</u>				
74	Scarify to a depth of 150mm, level and compact earth under solid floors, etc. to 98% Mod AASHTO density (LI)	m2	6,107		
75	Rip to a depth of 150mm thick, stabilise with 3% lime, level and compact to 95% Mod AASHTO density using a 5 ton vibratory roller or similar approved (LI)	m2	5,500		
Carried to Collection				R	
Section No. 2					
Bill No. 15					
External works (Provisional)					
Prepared by:					
Cepma Engineering Worx (Pty) Ltd					

**FACILITY: General Justice Gizenga Mpanza Regional Hospital**  
**DESCRIPTION: New 28 Bedded Male & Female**  
**Inpatient & Outpatient Mental Health Unit**

<b><u>Extra over all excavations for carting away:</u></b>				
76	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m3	2,747	
<b><u>Class 25MPa/19mm concrete:</u></b>				
77	Surface beds cast in panels (LI)	m3	48	
<b><u>Class 30MPa/19mm concrete:</u></b>				
78	Ramps (LI)	m3	55	
<b><u>Test cubes:</u></b>				
For each pour tested, 3(No.) cubes will be expected to account for 7 days, 14 days and 28 day strengths all in accordance with the Engineer's specifications				
79	Making and testing 150 x 150 x 150mm concrete strength test cube (Provisional)	No	21	
<b><u>Mechanical power floating of concrete surfaces:</u></b>				
80	Mechanical power float and mechanical steel trowel top of concrete surface bed with class U2 finish	m2	309	
<b><u>Class U2 wood float finish to:</u></b>				
81	Surface beds (LI)	m2	600	
<b><u>Rough formwork to sides:</u></b>				
82	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	66	
<b><u>Expansion joints with 24mm bitumen impregnated soft board between vertical concrete and brick surfaces:</u></b>				
83	Horizontal between concrete and brick surfaces not exceeding 300mm wide	m	38	
<b>Carried to Collection</b>				R
Section No. 2				
Bill No. 15				
External works (Provisional)				
<b>Prepared by:</b>				
<b>Cepma Engineering Worx (Pty) Ltd</b>				



	<b><u>Expansion joints with 10mm bitumen impregnated soft board between vertical concrete and brick surfaces:</u></b>				
84	Horizontal between concrete and brick surfaces not exceeding 300mm wide	m	1,452		
	<b><u>Saw cut joints:</u></b>				
85	Form 3mm wide x 40mm deep saw cut to top of concrete within 12 hours of pouring	m	248		
	<b><u>High tensile steel welded mesh:</u></b>				
86	Mesh Ref 193	m2	600		
87	Mesh Ref 395	m2	309		
	<b><u>"Sikaflex 11fc" or similar approved polysulphide sealing compound including backing cord, 12,5mm bond breaking cord, primer, etc. all in accordance with the Engineer's specifications:</u></b>				
88	24mm wide x 15mm deep In expansion joints in floors	m	38		
89	10mm wide x 15mm deep In expansion joints in floors	m	1,452		
90	3mm wide x 15mm Deep in saw cut joints	m	248		
	<b><u>Apply an approved soil herbicide in strict accordance with manufacturers instructions and SABS 1164-1165 (A five year warranty on the application is required):</u></b>				
91	Under floors, pavings, etc. including forming and poisoning shallow furrows against foundation walls etc., filling in furrows and ramming	m2	6,107		
	<b><u>Approved 500 Micron Green waterproof sheeting on earth, sealed at laps and ends with pressure sensitive tape":</u></b>				
92	One layer under surface beds, paving, etc. (LI)	m2	5,211		
Carried to Collection				R	
Section No. 2					
Bill No. 15					
External works (Provisional)					
Prepared by:					
Cepma Engineering Worx (Pty) Ltd					

**Paving of Type-S 25MPa paver blocks to SABS 1200 on 25mm thick river sand bed (sand elsewhere measured) with sand and cement mixture swept into joints and hosed down including preparation of ground or filling (elsewhere measured):**

93	50mm Paving to falls (LI)	m2	79
94	80mm Paving to falls (LI)	m2	4,223

**Untinted granolithic screed to concrete, finished to a smooth and even surface with a steel trowel:**

95	Average 30mm thick on floors to falls (LI)	m2	600
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**Prescribed density tests on filling:**

96	"Mod. AASHTO Density" test	No	20
97	'California Bearing Ratio' test	No	20
98	"Field Density" test including "Optimum Moisture Content" (four readings per test). (Only successful test will be paid for)	No	20
99	"Atterberg limits tests," carried out at an approved laboratory, of representative samples of fill material as indicated on site by the Employer (minimum set of three)	No	20

**Class 25/19 concrete:**

100	Fillet between pre-cast paving and access road (LI)	m3	44
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**Precast Concrete:**

101	Figure 6 kerb (SABS 927-1989) overall size. 75mm wide x 230mm high including jointing and flush pointing in cement mortar with and including all cutting, circular work, etc. (LI)	m	920
102	Ditto, but circular on plan not exceeding 4,0m radius (LI)	m	52

Carried to Collection

R

Section No. 2

Bill No. 15

External works (Provisional)

Prepared by:

Cepma Engineering Worx (Pty) Ltd

	<u>Prepare and spray paint one coat "white" colour reflective road marking paint on bituminous premix surface or concrete surfaces all in accordance with the manufacturer's specifications:</u>				
103	Paint to road surfaces including writings, zebra crossings, special bay markings, directional arrows, etc. (LI)	m2	159		
	<u>Prepare and spray paint one coat "yellow" reflective road marking paint on bituminous premix surface or concrete surfaces all in accordance with the manufacturer's specifications:</u>				
104	Paint to road surfaces including writings, zebra crossings, special bay markings, directional arrows, etc. (LI)	m2	9		
	<u>Road sign posts:</u>				
105	900mm Diameter regulation 'STOP' sign in accordance with SABS 1519 fitted and fixed on creosoted pole, 4500mm high bedded in 450 x 450 x 600mm deep Class C concrete footing, including all necessary excavation , etc.	No	1		
	<u>uPVC sleeve pipes including short lengths and jointing including laying in trenches and backfilling thereof:</u>				
106	110mm Diameter pipe laid in ground 750mm deep (LI)	m	88		
	<u>FENCING, MAIN ENTRANCE WALLS, ETC.</u>				
	<u>Removal of existing fencing, etc.:</u>				
107	Take down and remove from site existing precast concrete palasade fencing 2,4m high including breaking up and removing concrete bases to posts, filling in and ramming	m	156		
Carried to Collection				R	
Section No. 2					
Bill No. 15					
External works (Provisional)					
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108	Take down and remove existing 2,4m high diamond mesh fence complete with steel posts including excavating for, breaking up and removing concrete bases size 450mm wide x 450mm thick average 500mm deep and filling back and ramming	m	110		
109	Take down and remove existing barded wire coils on top existing fences with girths not exceeding 500mm	m	266		
110	Removal of existing gumpoles with a girth not exceeding 300mm and 2,4m high above ground including excavating for, breaking up and removing concrete bases size 450mm wide x 450mm thick average 500mm deep and filling back and ramming	No	10		
	<b><u>Break up and remove mass concrete:</u></b>				
111	Edge beams to existing fences including filling and ramming	m3	78		
	<b><u>Preparation for fencing:</u></b>				
112	Allow for all necessary clearing of fence line including grubbing up and removal of scrub, bush and trees not exceeding 200mm girth (Clearance will be for 1000mm on either side of the fence line)	m	39		
	<b><u>4mm Thick Welded high tensile steel mesh wrap panel aperture fencing with 76,2mm horizontal x 12,7mm verticals with panels at 2529mm centres supplied and installed complete with posts and with 100mm steel shark tooth spike topping as per the Architect's details and installed all in accordance with the manufacturer's specifications:</u></b>				
	<b><u>3,0m high fence:</u></b>				
113	Fencing 3,00m high complete with all posts, etc. and cast into concrete bases (bases elsewhere measured) all to the manufacturer's specifications	m	39		
Carried to Collection				R	
Section No. 2					
Bill No. 15					
External works (Provisional)					
Prepared by:					
Cepma Engineering Worx (Pty) Ltd					

FACILITY: General Justice Gizenga Mpanza Regional Hospital  
 DESCRIPTION: New 28 Bedded Male & Female  
 Inpatient & Outpatient Mental Health Unit

114	Single pedestrian gate formed of 50 x 50 x 2,8mm Thick galvanised mild steel frame all round with 4mm thick welded high tensile steel mesh wrap panel and 100mm galvanised steel shark tooth spike topping, the gate leaf hung on 3(No.) approved hinges as detailed and complete with Rim gate locknox Overall size 1000 x 3000mm high	No	1		
	<u>Galvanised gate posts complete with all the necessary bases including excavations, 15Mpa concrete, cartaway of material, etc. all in accordance with the manufacturer's specifications:</u>				
115	Extra over for 100mm diameter x 3mm thick corner, straining, or end post 3,2m long including and embedded to 450 x 450 x 900mm deep concrete base complete with all necessary excavations	No	8		
	<u>Excavation in earth not exceeding 2m deep:</u>				
116	For surface trenches not exceeding 2.0m deep (LI)	m3	8		
117	For bases not exceeding 2m deep (LI)	m3	5		
	<u>Extra over trench and base excavations in soft material for:</u>				
118	Intermediate material	m3	1		
119	Hard rock material	m3	6		
120	Class A boulder material	m3	1		
121	Class B boulder material	m3	3		
	<u>Excavation sundries:</u>				
122	Risk of collapse to sides of trenches, bases, pits, etc. not exceeding 1.50m deep	m2	115		
	<u>Keeping excavations free of water:</u>				
123	Keeping excavations free of water other than subterranean water			Item	
Carried to Collection				R	
Section No. 2					
Bill No. 15					
External works (Provisional)					
Prepared by:					
Cepma Engineering Worx (Pty) Ltd					





Interlocking planter blocks finished smooth on exposed surfaces and installed all in accordance with the manufacturer's specifications:

132	Retaining structure with stepped face and curves as required to suit slopes laid with horizontal bed joints to 60° slope including backfilling with earth obtained from the excavations and filling the blocks with garden soil lightly tamped as the work proceeds (LI)	m2	456
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Sundries:

133	Single layer of geotextile lining (Class A) to back of retaining wall (LI)	m2	456
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UNIT PLAQUE

6mm x 300mm high thick galvanised steel bold  
Halvetica lettering in capital letters with 3 x 10mm rods  
welded to plates and bolted to wall:

134	Nine letters Spelling out "KWA DUKUZA"	No	2
135	Fourteen letters Spelling out "MENTAL WELLNESS"	No	4

Carried to Collection

R

Section No. 2

Bill No. 15

External works (Provisional)

Prepared by:

Cepma Engineering Worx (Pty) Ltd

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

Section No. 2

Bill No. 15

External works (Provisional)

**COLLECTION**

Total Brought Forward from Page No.

Page  
No

Amount

214

215

216

217

218

219

220

221

222

223

224

225

226

227

228

229

230

231

Carried Forward

R

Section No. 2

Bill No. 15

External works (Provisional)

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**COLLECTION**

R

234

R

**Cepma Engineering Worx (Pty) Ltd**



Item No		Quantity	Rate	Amount
	<b><u>BILL NO. 16</u></b>			
	<b><u>PROVISIONAL SUMS</u></b>			
	The following allowances are for specialist activities to be performed as <b>SELECTED SUB-CONTRACTS</b>			
	Work listed hereunder will commence during the execution of this contract and the main contractor shall allow free access to the site for this selected sub contractor			
	The main contractor shall prepare a programme in conjunction with the selected sub contractor in order to complete the work successfully			
	The selected sub contractor payment will be made to them via the main contractor			
	The estimated values of the Selected Sub-contracts are listed in these Bills of Quantities to enable the main contractor to determine profit and attendance, if required			
	The entire process of procuring the selected sub contractor will be directed by the Engineer			
	<b><u>JOINERY FITTINGS</u></b>			
1	Provide the sum of R 1 250 000.00 (One Million Two Hundred and Fifty Thousand Rand Only) for the supply and installation of joinery units to reception, dispensary, admissions, consulting rooms, treatment rooms, store rooms, staff kitchenettes, round table room, art room, counselling rooms, kitchen hatches, etc. all in accordance with the Architect's specifications and details	Item		1,250,000.00
2	Allow for Profit	Item		
	<b>Carried to Collection</b>		R	
	Section No. 2			
	Bill No. 16			
	Provisional sums			
	<b>Prepared by:</b>			
	<b>Cepma Engineering Worx (Pty) Ltd</b>			

3	Allow for Attendance	Item	
<b><u>STRUCTURAL STEEL CATWALK IN ROOF VOID FOR SERVICING EQUIPMENT</u></b>			
4	Provide the sum of R 250 000.00 (Two Hundred and Fifty Thousand Rand Only) for the selected sub-contract works for the supply and installation of structural steel catwalk in roof void	Item	250,000.00
5	Allow for Profit	Item	
6	Allow for Attendance	Item	
<b><u>PLANT ROOF CANOPY STRUCTURE</u></b>			
7	Provide the sum of R 115 000.00 (One Hundred and Fifteen Thousand Rand Only) for the selected sub-contract works for the supply and installation of powdercoated plant room canopy structure complete with roof sheeting, downpipes, etc. all in accordance with the Architect's specifications	Item	115,000.00
8	Allow for Profit	Item	
9	Allow for Attendance	Item	
<b><u>PAINTINGS, MURALS, ETC.</u></b>			
10	Provide the sum of R 350 000.00 (Three Hundred and Fifty Thousand Rand Only) for the selected sub-contract works for the installation of paintings, murals, etc. all in accordance with the Architect's specifications	Item	350,000.00
11	Profit on the above	Item	
12	Attendance on the above	Item	
Carried to Collection			R
Section No. 2			
Bill No. 16			
Provisional sums			
Prepared by:			
Cepma Engineering Worx (Pty) Ltd			

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

**TREES, HARD LANDSCAPING, ETC.**

- 13 Provide the sum of R 150 000.00 (One Hundred and Fifty Thousand Rand Only) for the provision of indigenous trees, plants, hard landscaping, etc. complete with a six month maintenance period to ensure establishment of the plants all in accordance with the client's specifications

Item	150,000.00
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- 14 Allow for Profit

Item	
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- 15 Allow for Attendance

Item	
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**SIGNAGE**

- 16 Provide the sum of R 570 000.00 (Five Hundred and Seventy Thousand Rand Only) for the supply and installation of signage including space usage, directional, outdoor signage, etc. all in accordance with the Architect's specifications

Item	570,000.00
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- 17 Allow for Profit

Item	
------	--

- 18 Allow for Attendance

Item	
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Carried to Collection

R

Section No. 2

Bill No. 16

Provisional sums

Prepared by:

Cepma Engineering Worx (Pty) Ltd



FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

Section No. 2

Bill No. 16

Provisional sums

**COLLECTION**

Total Brought Forward from Page No.

Page  
No

237

238

239

Amount

Carried Forward to Summary of Section No. 2

R

Section No. 2

Bill No. 16

Provisional sums

Prepared by:

Cepma Engineering Worx (Pty) Ltd

-241-



**KWAZULU-NATAL PROVINCE**

**PUBLIC WORKS & INFRASTRUCTURE**  
REPUBLIC OF SOUTH AFRICA

**NEW 28 BEDDED MALE & FEMALE INPATIENT & OUTPATIENT MENTAL HEALTH UNIT**

**PART C2.4 Bills of Quantities - Section No. 3:**  
**ELECTRICAL WORKS**





Where any item is not relevant to this specific contract such item is marked N/A (signifying "not applicable")

Adjustment of the preliminaries: each item priced, is to be allocated to one or more of the three categories, where "F" denotes a fixed amount (amount not to be varied), "V" denotes an amount variable in proportion to value and "T" denotes an amount in proportion to time

Time (T) related Preliminaries will only be adjusted for omissions or additions, issued by the Employer, or delays caused by the Employer, for which variation and extension of time has been granted. See Contract Data

### **GENERAL REQUIREMENTS**

- 1 Engraved labels on each SSO (480 SSO) and light switch (270 SWITCHES) face plate, glued and screwed

F:..... V:..... T:.....

Item

- 2 Final phase balancing on DB's

F:..... V:..... T:.....

Item

- 3 As-built drawings for new electrical installation

F:..... V:..... T:.....

Item

- 4 12 month equipment and installation guarantee period

F:..... V:..... T:.....

Item

### **SITE OFFICE AND EQUIPMENT**

- 5 Provide and maintain site office including toilets for 12 months

F:..... V:..... T:.....

Item

**Carried to Collection**

R

Section No. 3

Bill No. 1

Preliminaries and general

**Prepared by:**

**Cepma Engineering Worx (Pty) Ltd**

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male & Female  
Inpatient & Outpatient Mental Health Unit**FIXED COSTS**

- 6 Salary and wages, telephone, faxes, transport and any other fixed costs for 12 months

F:..... V:..... T:.....

Item

- 7 Equipment and plant

F:..... V:..... T:.....

Item

- 8 Municipal supply connection

F:..... V:..... T:.....

Item

Carried to Collection

R

Section No. 3

Bill No. 1

Preliminaries and general

Prepared by:

Cepma Engineering Worx (Pty) Ltd



FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

Section No. 3

Bill No. 1

Preliminaries and general

**COLLECTION**

Total Brought Forward from Page No.

Page  
No

Amount

242

243

244

Carried Forward to Summary of Section No. 3

R

Section No. 3

Bill No. 1

Preliminaries and general

Prepared by:

Cepma Engineering Worx (Pty) Ltd

Item No		Quantity	Rate	Amount
	<b><u>BILL NO. 2</u></b>			
	<b><u>INFRASTRUCTURE AND BUILDING WORKS</u></b>			
	<u>Descriptions and preambles:</u>			
	1. For preambles see "Standard Preambles to all Trades Rev 3 - DoH 2009"			
	2. Contractor is referred to Trades to follow hereafter for preambles and full descriptions of materials and items not fully described in this Trade and which shall apply equally to work in this Trade, unless otherwise described			
	<u>Trade Names and Proprietary Products:</u>			
	1. All descriptions or clauses where trade names or proprietary products are specified, are deemed to include the phrase "or other approved"			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	<u>Reference to drawings and project specification documentation:</u>			
	1. Contractors to make reference to drawings and project specification documentation that forms part of these Bills of Quantities for all installations and procedures required for the installation or execution of these works			
	<b>Carried to Collection</b>		R	
	Section No. 3			
	Bill No. 2			
	Infrastructure and building works			
	<b>Prepared by:</b>			
	<b>Cepma Engineering Worx (Pty) Ltd</b>			

Material samples:

1. Before commencement of any work, the contractor will be required to timeously supply a sample of the material to be used to the Principal Agent for approval at no cost
2. Material installed without prior approval from the Principal Agent will be removed at the contractor's cost

Carried to Collection

R

Section No. 3

Bill No. 2

Infrastructure and building works

Prepared by:

Cepma Engineering Worx (Pty) Ltd



FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male & Female  
Inpatient & Outpatient Mental Health UnitGeneral:

1. All details and dimensions shown on the drawings are subject to confirmation on site and during construction. All dimensions and levels are to be confirmed on site before commencement of the works
2. All levels on structural drawings refer to the top of concrete, steel, etc. unless otherwise indicated
3. The Contractor is to comply at all times with all the relevant municipal regulations, conditions of approval and bylaws in the area of the site and is to ensure that a set of approved building plans is on site at all times
4. All specification documentation, drawings, etc. shall be available on site at all times
5. The Contractor shall at all times be fully responsible for quality control on site ensuring strict compliance with all drawings, details and specifications issued by the relevant design consultant. The Contractor shall submit a quality control plan for each portion of work prior to the commencement for acceptance. The works shall only commence on acceptance of the quality plan by the relevant design consultant
6. All products specified for use are to be used in strict accordance with the manufacturer's specifications and where applicable by an approved manufacturer's applicator or installer
7. Products different to those specified in the specification documentation shall only be used with prior approval of the relevant design consultant

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R

Section No. 3

Bill No. 2

Infrastructure and building works

Prepared by:

Cepma Engineering Worx (Pty) Ltd

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

Shop drawings:

1. Shop drawings are to be provided for all elements that are to be fabricated by the contractor's fabricator or supplier
2. All shop drawings are to be submitted to the relevant design consultant or Principal Agent for approval prior to the commencement of fabrication
3. Any fabricated elements installed without prior approval by the relevant design consultant or Principal Agent will be removed at the contractor's cost

Samples:

1. A sample of any approved product must be delivered to site for sign off by the relevant design consultant or Principal Agent prior to commencement of the installation

**LOW VOLTAGE CABLES****Supply, deliver and install of PVC/SWA/PVC ECC  
Copper low-voltage cables:**

1	185mm <sup>2</sup> , 4-core	m	300
2	95mm <sup>2</sup> , 4-core	m	100
3	35mm <sup>2</sup> , 4-core	m	250
4	25mm <sup>2</sup> , 4-core	m	550
5	16mm <sup>2</sup> , 4-core	m	600
6	10mm <sup>2</sup> , 4-core	m	100
7	16mm <sup>2</sup> , 2-core	m	300

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R

Section No. 3

Bill No. 2

Infrastructure and building works

Prepared by:

Cepma Engineering Worx (Pty) Ltd

**CABLE TERMINATIONS**

Cable terminations complete including glands, shrouds, lugs, connections and commissioning. Supply and install the following terminations

**Supply and deliver of PVC/SWA/PVC ECC Cu low-voltage cable Terminations:**

8	185mm <sup>2</sup> , 4-core	No	6
9	95mm <sup>2</sup> , 4-core	No	2
10	35mm <sup>2</sup> , 4-core	No	8
11	25mm <sup>2</sup> , 4-core	No	8
12	16mm <sup>2</sup> , 4-core	No	12
13	10mm <sup>2</sup> , 4-core	No	4
14	16mm <sup>2</sup> , 2-core	No	10

**Supply and deliver green insulated earth conductors:**

15	16mm <sup>2</sup>	m	1,000
16	Cable marking with Gravoplast at end, bellow termination shroud	Item	

**ELECTRICAL WORKS INSTALLATION****Supply and install wall recessed electricity distribution boards as specified on the drawing, including factory inspection:**

17	MEDB	No	1
18	MDB	No	1
19	DB12	No	1

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Section No. 3

Bill No. 2

Infrastructure and building works

Prepared by:

Cepma Engineering Worx (Pty) Ltd



FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male & Female  
Inpatient & Outpatient Mental Health Unit

20	EDB1	No	1
21	EDB2	No	1
22	EDB3	No	1
23	EDB4	No	1
24	EDB5	No	1
25	EDB6	No	1
26	EDB7	No	1
27	EDB8	No	1
28	EDB9	No	1
29	EDB10	No	1
30	EDB11	No	1
31	EDB12	No	1
32	EDB13	No	1
33	UPS 8 WAY standard DB complete with 3 x 20A & 1 x 10A single pole breakers and 30A Double pole main breaker	No	4
<b><u>UNINTERRUPTED POWER SUPPLY THREE</u></b>			
<b><u>PHASE 5kVA UPS</u></b>			
34	Supply and deliver standby 10KVA UPS complete with rotary bypass switch and back up battery with capacity for 60 minute back up supply including the shop drawing and factory inspection Uninterrupted Power Supply	No	2
<b><u>UPS BATTERIES</u></b>			
35	Supply and install UPS Batteries with stand-by capacity of 60 minutes as Specified	No	2

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R

Section No. 3

Bill No. 2

Infrastructure and building works

Prepared by:

Cepma Engineering Worx (Pty) Ltd

**SUPPLY, DELIVER AND INSTALL KIOSK**

36	Supply, deliver and Install free standing weather proof KIOSK complete with concrete base with 2x30A Single Phase Isolators & 1x40A Three Phase Isolator for heating plant	No	2
37	Supply, deliver and Install free standing weather proof KIOSK complete with concrete base with 4x60A Three Phase breakers & 4x10A Single Phase breakers and 250A 4 pole main breaker for mechanical heating plant	No	1

**LIGHTING INSTALLATION****Supply, deliver and install tamper proof light switches:**

38	16A single lever one way light switch	No	250
39	Photocell	No	10
40	16A single lever two way light switch	No	50
41	16A two lever two way light switch	No	60

**Supply and install light fittings complete with lamps and electronic:**

42	1200MM IP54 2X24W LED vandal proof Light Fitting with vandal resistant glass Diffuser and replaceable Led Light Tubes, Complete With Electronic Control Gear recessed in concrete ceiling. Fitting should be 1300mm long, 220mm wide and 90mm in depth such as "Nordland" lighting tamper proof fitting or any equivalent tamper proof fitting suited for rough conditions such as prison cells	No	450
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R

Section No. 3

Bill No. 2

Infrastructure and building works

Prepared by:

Cepma Engineering Worx (Pty) Ltd

43	1200MM IP54 2X24W LED vandal proof Light Fitting with vandal resistant glass Diffuser and replaceable Led Light Tubes, Complete With emergency battery backup power kit, Electronic Control Gear recessed in concrete ceiling. Fitting should be 1300mm long, 220mm wide and 90mm in depth such as "Nordland" lighting tamper proof fitting or any equivalent tamper proof fitting suited for rough conditions such as prison cells	No	70
44	600MM IP54 2X18W LED vandal proof Light Fitting with vandal resistant glass Diffuser and replaceable Led Light Tubes, Complete With Electronic Control Gear recessed in concrete ceiling. Fitting should be 685mm long, 220mm wide and 90mm in depth such as "Nordland" lighting tamper proof fitting or any equivalent tamper proof fitting suited for rough conditions such as prison cells	No	30
45	280MM IP54 2X12W LED vandal proof Light Fitting with vandal resistant glass diffuser and replaceable Led Light Tubes, Complete With Electronic Control Gear recessed in concrete ceiling. Fitting should be 280mm long, 280mm wide and 80mm in depth such as "Regent" lighting's tamper proof Geo bulkhead light fitting or any equivalent tamper proof fitting suited for rough conditions such as prison cells	No	40
46	24W LED Vandal proof bulkhead Light Fitting surface mounted to the walls	No	80
47	Doctor examination light wall mounted at 1500mm ffl and with luminance output of 50 000 lux	No	10
48	Ceiling mounted medical procedure examination light with centre luminance at 1000mm of 100 000 lux and with detachable centre grip handle	No	4
49	960mm x 429mm digital X-Ray viewing screen (HU-XRU-02)	No	22
50	Light switching ceiling mounted motion sensors	No	30

**POWER OUTLETS**

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Section No. 3

Bill No. 2

Infrastructure and building works

Prepared by:

Cepma Engineering Worx (Pty) Ltd



**FACILITY: General Justice Gizenga Mpanza Regional Hospital**  
**DESCRIPTION: New 28 Bedded Male & Female**  
**Inpatient & Outpatient Mental Health Unit**

<b><u>All socket outlets to be vandal proof and tamper proof flush mounted socket outlets:</u></b>					
51	Supply and install 16A 3-pin single switched socket outlet	No	10		
52	Supply and install 16A 3-pin double switched socket outlet combo of SANS 164-1/2	No	180		
53	Supply and install 16A Dedicated double switched socket outlet. Combo of SANS 164-1 & SANS 164-2 socket outlet	No	10		
<b><u>Supply, deliver and install flush mounted socket outlets on power skirting:</u></b>					
54	16A 3-pin Double switched socket outlet combo of SANS 164-1/2	No	80		
55	16A 3-pin dedicated single switched socket outlet combo of SANS 164-1/2	No	40		
<b><u>Supply, Deliver and install unswitched socket outlets:</u></b>					
56	5A unswitched socket outlets on steel trunking in roof void	No	300		
<b><u>Supply, deliver and install isolators for fixed equipment:</u></b>					
57	15A 3 phase pole flush wall mounted isolator	No	15		
58	30A 3 phase wall mounted isolators	No	12		
59	50A 3 phase wall mounted isolator	No	2		
60	50A 3 phase free standing external weather proof isolator	No	5		
61	15A Single phase flush wall mounted isolator	No	50		
<b><u>BEDHEAD DUCTING</u></b>					
<b>Carried to Collection</b>				R	
Section No. 3					
Bill No. 2					
Infrastructure and building works					
Prepared by:					
Cepma Engineering Worx (Pty) Ltd					

**Supply, deliver and install bedhead ducting:**

- 62 Complete "HUTZ" Bedhead trunking with 2.4 metre aluminium extrusion, complete with 3 medical gas outlets oxygen, nitrogen and vacuum, 1 x 24w LED light fitting and switch, 4 socket outlets (red switch) , 2 single pole isolators and 2 earth leakage units, 1 nurse call per bed, end caps

No 6

**WIRING, WIREWAYS AND ACCESSORIES****Supply deliver and install PVC insulated stranded copper conductors:**

- 63 2,5mm<sup>2</sup> m 15,000

- 64 4mm<sup>2</sup> m 15,000

**Supply, deliver and install PVC conduits complete with accessories. Conduits to be cast in concrete, ceiling void or built into brick walls:**

- 65 32mmØ PVC m 6,000

- 66 25mmØ PVC m 4,000

- 67 20mmØ PVC m 8,000

- 68 PVC couplers No 400

- 69 PVC round boxes 2-way No 300

- 70 PVC back entry round box No 100

- 71 PVC end box No 100

- 72 PVC 3-way box No 100

- 73 PVC angle box No 25

- 74 PVC 4-way box No 80

**PVC DRAW BOXES**

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R

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Bill No. 2

Infrastructure and building works

Prepared by:

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**Supply and install the following draw boxes built into brickwork, cast into concrete, ceiling void or built into dry wall:**

75	75mm x 75mm x 50mm deep - Supply	No	280
76	75mm x 75mm x 50mm deep - Install	No	280
77	100mm x 100mm x 50mm deep - Supply	No	350
78	100mm x 100mm x 50mm deep - Install	No	350
79	150mm x 150mm x 75mm deep - Supply	No	100
80	150mm x 150mm x 75mm deep - Install	No	100

**Supply and install extruded aluminium power skirting complete with covers and accessories:**

81	2-Compartment PVC power skirting straight run	m	400
82	90 degree internal elbow	No	20
83	Cover joining clips	No	100
84	End caps	No	100

**TRUNKING**

**Supply and install as specified in the position as indicated on the drawings. Rate to include all accessories, e.g. hangers, screws etc. required to fix the trunking on to the concrete ceiling:**

85	Trunking - P9000	m	3,000
86	Trunking - P2000	m	1,000
87	Cover plate for P9000	m	3,000
88	Cover plate P2000	m	1,000
89	90° Elbow for P9000	No	80

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R

Section No. 3

Bill No. 2

Infrastructure and building works

Prepared by:

Cepma Engineering Worx (Pty) Ltd



90	90° Elbow P2000	No	80
91	Tee for P9000	No	20
92	Tee P2000	No	20
93	End Cap P9000	No	114
94	End Cap P2000	No	114
95	4-Way P9000	No	20
96	4-Way P2000	No	20

**CABLE TRAYS**

**Supply and installation of medium duty galvanised cable tray including all accessories required to hung underneath the concrete ceiling soffit in a trapeze method:**

97	300mm Wide medium duty galvanised cable tray	m	250
98	Cable tray splice set	No	6
99	300mm Vertical bend	No	4
100	300mm TEE piece	No	8
101	300mm Horizontal bend	No	4
102	300mm, 4-way junction	No	4
103	300mm to 250mm reducers	No	1

**Supply and install PVC sleeves:**

104	160mm PVC Sleeves cast into concrete floor	m	1,000
105	110mm PVC Sleeves cast into concrete floor	m	1,000

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R

Section No. 3

Bill No. 2

Infrastructure and building works

Prepared by:

Cepma Engineering Worx (Pty) Ltd

**Construct cable trenches:**

106	Excavate in all materials for trenches, backfill, compact and dispose surplus materials - 1m deep x 0.8m wide (MV) and 0,65m deep x 0,45m wide (LV)	m	400
-----	---	---	-----

107	Extra over item above for excavating in hard material	m	90
-----	---	---	----

**Construct manholes:**

108	1000mm x 1000mm x 1200mm deep manhole with vandal proof lockable cover	No	4
-----	--	----	---

109	supply and install a 11kV to 415V ,315kVA mini substation complete with oil transformer, 3 way vacuum type RMU,breakers and isolators and concrete plinth	No	1
-----	---	----	---

110	supply and install 11kV 95mm 4 core XLPE cable	m	150
-----	--	---	-----

111	Supply and install 250A bi directional three phase WiFi Smart energy meter complete with CT clamps and din rail mounting	No	2
-----	--	----	---

112	Supply and install 200A bi directional three phase WiFi Smart energy meter complete with CT clamps and din rail mounting	No	2
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R

Section No. 3

Bill No. 2

Infrastructure and building works

Prepared by:

Cepma Engineering Worx (Pty) Ltd

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

Section No. 3

Bill No. 2

Infrastructure and building works

**COLLECTION**

Total Brought Forward from Page No.

Page  
No

Amount

246

247

248

249

250

251

252

253

254

255

256

257

258

Carried Forward to Summary of Section No. 3

R

Section No. 3

Bill No. 2

Infrastructure and building works

Prepared by:

Cepma Engineering Worx (Pty) Ltd



Item  
No

Quantity Rate Amount

**BILL NO. 3****LIGHTENING PROTECTION**Descriptions and preambles:

1. For preambles see "Standard Preambles to all Trades Rev 3 - DoH 2009"
2. Contractor is referred to Trades to follow hereafter for preambles and full descriptions of materials and items not fully described in this Trade and which shall apply equally to work in this Trade, unless otherwise described

Trade Names and Proprietary Products:

1. All descriptions or clauses where trade names or proprietary products are specified, are deemed to include the phrase "or other approved"

**SUPPLEMENTARY PREAMBLES**Reference to drawings and project specification documentation:

1. Contractors to make reference to drawings and project specification documentation that forms part of these Bills of Quantities for all installations and procedures required for the installation or execution of these works

Carried to Collection

R

Section No. 3

Bill No. 3

Lightening protection

Prepared by:

Cepma Engineering Worx (Pty) Ltd

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

Material samples:

1. Before commencement of any work, the contractor will be required to timeously supply a sample of the material to be used to the Principal Agent for approval at no cost
2. Material installed without prior approval from the Principal Agent will be removed at the contractor's cost

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R

Section No. 3

Bill No. 3

Lightening protection

Prepared by:

Cepma Engineering Worx (Pty) Ltd

General:

1. All details and dimensions shown on the drawings are subject to confirmation on site and during construction. All dimensions and levels are to be confirmed on site before commencement of the works
2. All levels on structural drawings refer to the top of concrete, steel, etc. unless otherwise indicated
3. The Contractor is to comply at all times with all the relevant municipal regulations, conditions of approval and bylaws in the area of the site and is to ensure that a set of approved building plans is on site at all times
4. All specification documentation, drawings, etc. shall be available on site at all times
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6. All products specified for use are to be used in strict accordance with the manufacturer's specifications and where applicable by an approved manufacturer's applicator or installer
7. Products different to those specified in the specification documentation shall only be used with prior approval of the relevant design consultant

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R

Section No. 3

Bill No. 3

Lightening protection

Prepared by:

Cepma Engineering Worx (Pty) Ltd



FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

Shop drawings:

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3. Any fabricated elements installed without prior approval by the relevant design consultant or Principal Agent will be removed at the contractor's cost

Samples:

1. A sample of any approved product must be delivered to site for sign off by the relevant design consultant or Principal Agent prior to commencement of the installation

**LIGHTENING PROTECTION INSTALLATION****Conduct soil resistivity test:**

- | 1 | Material |  | Item |
|---|----------|--|------|
| 2 | Labour   |  | Item |

**Supply and Install 1,5m SABS Approved copper earthrods at a depth of 500mm below ground level****Material:**

- |   |          |    |    |
|---|----------|----|----|
| 3 | Material | No | 50 |
| 4 | Labour   | No | 50 |

**70mm<sup>2</sup> Insulated Copper wire:**

- |   |          |   |     |
|---|----------|---|-----|
| 5 | Material | m | 500 |
|---|----------|---|-----|

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R

Section No. 3

Bill No. 3

Lightening protection

Prepared by:

Cepma Engineering Worx (Pty) Ltd

6	Labour	m	500
<u>Bond to test point as per drawing:</u>			
7	Material	No	50
8	Labour	No	50
<u>Electrochemical /Exothermic connection:</u>			
9	Material	No	50
10	Labour	No	50
<u>Trenching in soft rock :</u>			
11	Material	m3	500
12	Labour	m3	500
<u>PVC conduit 25mm diameter (flush mounted in the wall from the roof to the flush galvanised conduit box and from conduit box to the earth peg outside the building):</u>			
13	Material	m	600
14	Labour	m	600
<u>105mm x 105 mm galvanized conduit box located 300 mm above finished floor level and fitted with blank PVC cover plates labelled "Earth Test Point":</u>			
15	Material	No	50
16	Labour	No	50
<u>Conductive cement:</u>			
17	Material	No	100
18	Labour	No	100

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R

Section No. 3

Bill No. 3

Lightening protection

Prepared by:

Cepma Engineering Worx (Pty) Ltd

<u>Continuous 35 square mm round solid zinc coated copper strip secured to roof of building, including all clamps, joints and fixing accessories:</u>					
19	Material	m	1,500		
20	Labour.	m	1,500		
<u>10mm<sup>2</sup> bare copper earth wire for interconnection of earth pegs:</u>					
21	Material	m	500		
22	Labour	m	500		
<b><u>BONDING</u></b>					
All steel fixings and equipment must be bonded to the roof and to earth pegs in lieu of the earthing conductor with a test box					
<u>70mm<sup>2</sup> Insulated copper wire:</u>					
23	Material	m	400		
24	Labour	m	400		
<u>Bond to test point as per drawing:</u>					
25	Material	No	100		
26	Labour	No	100		
<u>Electrochemical /Exothermic connection:</u>					
27	Material	No	100		
28	Labour	No	100		
<u>Trenching in soft rock:</u>					
29	Material	m <sup>3</sup>	80		
Carried to Collection				R	
Section No. 3					
Bill No. 3					
Lightening protection					
Prepared by:					
Cepma Engineering Worx (Pty) Ltd					



30	Labour	m3	80		
	<u>PVC conduit 25mm diameter (from conduit box to the earth peg outside the building):</u>				
31	Material	m	500		
32	Labour	m	500		
	<u>105mm x 105 mm galvanized conduit box located 300 mm above finished floor level and fitted with blank PVC cover plates labelled "Earth Test Point":</u>				
33	Material	No	100		
34	Labour	No	100		
	<u>Conductive cement:</u>				
35	Material	No	100		
36	Labour	No	100		
	<u>TESTING AND COMMISSIONING</u>				
37	Testing and commissioning and issuing of COC for the complete earthing and lightning protection installation			Item	

Carried to Collection

R

Section No. 3

Bill No. 3

Lightening protection

Prepared by:

Cepma Engineering Worx (Pty) Ltd

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

Section No. 3

Bill No. 3

Lightening protection

**COLLECTION**

Total Brought Forward from Page No.

Page  
No

Amount

260

261

262

263

264

265

266

Carried Forward to Summary of Section No. 3

R

Section No. 3

Bill No. 3

Lightening protection

Prepared by:

Cepma Engineering Worx (Pty) Ltd

Item No		Quantity	Rate	Amount
	<b><u>BILL NO. 4</u></b>			
	<b><u>ROOF TOP SOLAR SYSTEM</u></b>			
	<u>Descriptions and preambles:</u>			
	1. For preambles see "Standard Preambles to all Trades Rev 3 - DoH 2009"			
	2. Contractor is referred to Trades to follow hereafter for preambles and full descriptions of materials and items not fully described in this Trade and which shall apply equally to work in this Trade, unless otherwise described			
	<u>Trade Names and Proprietary Products:</u>			
	1. All descriptions or clauses where trade names or proprietary products are specified, are deemed to include the phrase "or other approved"			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	<u>Reference to drawings and project specification documentation:</u>			
	1. Contractors to make reference to drawings and project specification documentation that forms part of these Bills of Quantities for all installations and procedures required for the installation or execution of these works			
	<b>Carried to Collection</b>		R	
	Section No. 3			
	Bill No. 4			
	Solar installation			
	Prepared by:			
	Cepma Engineering Worx (Pty) Ltd			



FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male & Female  
Inpatient & Outpatient Mental Health UnitMaterial samples:

1. Before commencement of any work, the contractor will be required to timeously supply a sample of the material to be used to the Principal Agent for approval at no cost
2. Material installed without prior approval from the Principal Agent will be removed at the contractor's cost

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R

Section No. 3

Bill No. 4

Solar installation

Prepared by:

Cepma Engineering Worx (Pty) Ltd

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male & Female  
Inpatient & Outpatient Mental Health UnitGeneral:

1. All details and dimensions shown on the drawings are subject to confirmation on site and during construction. All dimensions and levels are to be confirmed on site before commencement of the works
2. All levels on structural drawings refer to the top of concrete, steel, etc. unless otherwise indicated
3. The Contractor is to comply at all times with all the relevant municipal regulations, conditions of approval and bylaws in the area of the site and is to ensure that a set of approved building plans is on site at all times
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6. All products specified for use are to be used in strict accordance with the manufacturer's specifications and where applicable by an approved manufacturer's applicator or installer
7. Products different to those specified in the specification documentation shall only be used with prior approval of the relevant design consultant

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R

Section No. 3

Bill No. 4

Solar installation

Prepared by:

Cepma Engineering Worx (Pty) Ltd

**FACILITY: General Justice Gizenga Mpanza Regional Hospital**  
**DESCRIPTION: New 28 Bedded Male & Female**  
**Inpatient & Outpatient Mental Health Unit**

Shop drawings:

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2. All shop drawings are to be submitted to the relevant design consultant or Principal Agent for approval prior to the commencement of fabrication
3. Any fabricated elements installed without prior approval by the relevant design consultant or Principal Agent will be removed at the contractor's cost

Samples:

1. A sample of any approved product must be delivered to site for sign off by the relevant design consultant or Principal Agent prior to commencement of the installation

**SOLAR SYSTEM INSTALLATION**

1	Large scale 3 phase 100kw 48v hybrid inverter with not less than 5 independent MPTT and Maximum DC Input Voltage Vmax of not less than 900V	No	1
2	550 watt Mono PV solar panels	No	200
3	100kwh Lithium battery 48 V with minimum 80% DOD and at least 4000 cycles and built in battery management system	No	1
4	6mm green cable	m	100
5	100X40mm trunking	m	50
6	Waco Earth spike	No	1
7	6mm DC cables red	m	500

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R

Section No. 3

Bill No. 4

Solar installation

Prepared by:

Cepma Engineering Worx (Pty) Ltd



FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male & Female  
Inpatient & Outpatient Mental Health Unit

8	6mm DC cables black	m	500
9	Solar panel mounting 40mmx40mm top & side slot aluminium rail 6.6m lengths	No	52
10	Middle clamps ( U bracket 40mm) complete with M8 cap screw X40mm bolt with square nut	No	20
11	End Clamp (Z bracket 40mm) complete with M8 cap screw x 40mm bolt with square nut	No	140
12	Battery DC Cable 35mm black	m	50
13	16mm 4 C ECC copper cable	m	30
14	Battery DC Cable 35mm red	m	50
15	Battery fuse holder 3 pole Mersen complete with 200A fuses	No	1
16	3P Surge protector 1000V	No	1
17	100A DC circuit breaker 2 pole	No	1
18	Surface mounted 12 way Distribution board complete with 12x 30A DC circuit breakers	No	1
19	MC4 female connectors	No	60
20	MC4 male connectors	No	60
21	MC4 T female branch connectors	No	10
22	MC4 T male branch connectors	No	10
23	35mm lugs	No	16
24	16mm lugs	No	12
25	6mm lugs	No	24
26	K&N Three Phase AC Switch disconnecter 200A	No	2

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R

Section No. 3

Bill No. 4

Solar installation

Prepared by:

Cepma Engineering Worx (Pty) Ltd

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male & Female  
Inpatient & Outpatient Mental Health Unit

27	K&N Three Phase AC three way changeover / bypass Switch disconnecter 200A	No	1		
28	Flat plate joiners (Rail joining piece 40mm)	No	72		
29	M8 X 20mm bolt & nut with flat & spring washer	No	160		
30	M8 X 20mm bolt & hex nut with flat & spring washer	No	160		
31	M8 X 40mm bolt & square nut with flat & spring washer	No	160		
32	M8 X 20mm bolt & Rivnut with flat & spring washer	No	160		
33	L - corrugated roof Aluminium alloy bracket with rubber gasket	No	320		
34	20mm "Hellermann Tyton" line taps high tensile brass and electro tinned plated with nut that gives extra clamping force	No	4		
Carried to Collection				R	
Section No. 3					
Bill No. 4					
Solar installation					
Prepared by:					
Cepma Engineering Worx (Pty) Ltd					

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male & Female  
Inpatient & Outpatient Mental Health Unit

Section No. 3

Bill No. 4

Solar installation

**COLLECTION**

Total Brought Forward from Page No.

Page  
No

Amount

268

269

270

271

272

273

Carried Forward to Summary of Section No. 3

R

Section No. 3

Bill No. 4

Solar installation

Prepared by:

Cepma Engineering Worx (Pty) Ltd



FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

Item  
No

Quantity

Rate

Amount

**BILL NO. 5****NURSE CALL AND PUBLIC ADDRESS  
SYSTEMS**Descriptions and preambles:

1. For preambles see "Standard Preambles to all Trades Rev 3 - DoH 2009"
2. Contractor is referred to Trades to follow hereafter for preambles and full descriptions of materials and items not fully described in this Trade and which shall apply equally to work in this Trade, unless otherwise described

Trade Names and Proprietary Products:

1. All descriptions or clauses where trade names or proprietary products are specified, are deemed to include the phrase "or other approved"

**SUPPLEMENTARY PREAMBLES**Reference to drawings and project specification documentation:

1. Contractors to make reference to drawings and project specification documentation that forms part of these Bills of Quantities for all installations and procedures required for the installation or execution of these works

Carried to Collection

R

Section No. 3

Bill No. 5

Nurse call and public address systems

Prepared by:

Cepma Engineering Worx (Pty) Ltd

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male & Female  
Inpatient & Outpatient Mental Health UnitMaterial samples:

1. Before commencement of any work, the contractor will be required to timeously supply a sample of the material to be used to the Principal Agent for approval at no cost
2. Material installed without prior approval from the Principal Agent will be removed at the contractor's cost

Carried to Collection

R

Section No. 3

Bill No. 5

Nurse call and public address systems

Prepared by:

Cepma Engineering Worx (Pty) Ltd

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male & Female  
Inpatient & Outpatient Mental Health UnitGeneral:

1. All details and dimensions shown on the drawings are subject to confirmation on site and during construction. All dimensions and levels are to be confirmed on site before commencement of the works
2. All levels on structural drawings refer to the top of concrete, steel, etc. unless otherwise indicated
3. The Contractor is to comply at all times with all the relevant municipal regulations, conditions of approval and bylaws in the area of the site and is to ensure that a set of approved building plans is on site at all times
4. All specification documentation, drawings, etc. shall be available on site at all times
5. The Contractor shall at all times be fully responsible for quality control on site ensuring strict compliance with all drawings, details and specifications issued by the relevant design consultant. The Contractor shall submit a quality control plan for each portion of work prior to the commencement for acceptance. The works shall only commence on acceptance of the quality plan by the relevant design consultant
6. All products specified for use are to be used in strict accordance with the manufacturer's specifications and where applicable by an approved manufacturer's applicator or installer
7. Products different to those specified in the specification documentation shall only be used with prior approval of the relevant design consultant

Carried to Collection

Section No. 3

Bill No. 5

Nurse call and public address systems

Prepared by:

Cepma Engineering Worx (Pty) Ltd

R



FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

Shop drawings:

1. Shop drawings are to be provided for all elements that are to be fabricated by the contractor's fabricator or supplier
2. All shop drawings are to be submitted to the relevant design consultant or Principal Agent for approval prior to the commencement of fabrication
3. Any fabricated elements installed without prior approval by the relevant design consultant or Principal Agent will be removed at the contractor's cost

Samples:

1. A sample of any approved product must be delivered to site for sign off by the relevant design consultant or Principal Agent prior to commencement of the installation

**NURSE CALL AND PUBLIC ADDRESS SYSTEM INSTALLATION****Supply and install the complete Public Address system and Nurse Call System:**

- 1 Public address call station panel complete with microphone/ gooseneck microphone and freely programmable rugged press-buttons, one key with a hinged safety cover. The microphone capsule is monitored on failure, and a failure control signal is provided to indicate that failure. Includes active alarm button (red button) to initiate alarm sequence
- 2 Public address system master station controller unit complete with mixers, recorders, priority modules, control modules and multifunctional 240W voice alarm system (VAC) amplifier, mountable in an EIA-standard 19" equipment rack. The unit comes with audio inputs, including the background music input

No

3

No

3

Carried to Collection

R

Section No. 3

Bill No. 5

Nurse call and public address systems

Prepared by:

Cepma Engineering Worx (Pty) Ltd

**FACILITY: General Justice Gizenga Mpanza Regional Hospital**  
**DESCRIPTION: New 28 Bedded Male & Female**  
**Inpatient & Outpatient Mental Health Unit**

3	Power amplifier complete power input module, 240W rated output power on 50V, 70V and 100V lines, short-circuit proof and open-circuit proof and overheating protection. TOA or any SABS approved products	No	1		
4	65-100A/H sealed maintenance free Batteries with voltage output to match the amplifier voltage requirements	No	1		
5	Power amplifier for the PA system	No	1		
6	Power supply unit for PA system	No	1		
7	Emergency power supply unit for the Evac system	No	1		
8	Ceiling mounted IP speaker-Certified BS & EN54-24, TOA speakers or any equally approved	No	44		
9	Emergency call LED light mounted above entrances into the doctor consulting rooms	No	20		
10	Emergency call/Cancel unit button to be mounted onto/ in the wall in doctor consulting rooms	No	54		
11	Emergency call system power supply with battery backup 65-100 AH and battery voltage to match entire system and complete with surge and lightning protection units	No	1		
12	Emergency call system master controller complete with expansion board, housed in steel enclosure and micro-processor based fully programmable through a PC	No	1		
13	Nurse/security Console, with customised template of rooms to identify the calling locations. To be enclosed in steel enclosure or a display 49" LED display monitor with audible alarm sounder and room templates	No	1		
14	Nurse duty station PC	No	1		
15	Pre-wired Junction Box with Chime Unit	No	1		
<b>Carried to Collection</b>				R	
Section No. 3					
Bill No. 5					
Nurse call and public address systems					
<b>Prepared by:</b>					
<b>Cepma Engineering Worx (Pty) Ltd</b>					

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male & Female  
Inpatient & Outpatient Mental Health Unit

- |    |   |    |    |      |  |
|----|---|----|----|------|--|
| 16 | Programming of Nurse Call system, testing and commissioning                               |    |    |      |  |
| 17 | CAT6 Cable per 100m roll  | No | 10 |      |  |
| 18 | Double insulated, twin sheathed flex 2.5mm cable for public address systems in 100m rolls | No | 20 |      |  |
| 19 | Speaker system accessories connectors, assemblies, racks etc.                             |    |    | Item |  |

Carried to Collection

R

Section No. 3

Bill No. 5

Nurse call and public address systems

Prepared by:

Cepma Engineering Worx (Pty) Ltd



FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

Section No. 3

Bill No. 5

Nurse call and public address systems

**COLLECTION**

Total Brought Forward from Page No.

Page  
No

Amount

275

276

277

278

279

280

Carried Forward to Summary of Section No. 3

R

Section No. 3

Bill No. 5

Nurse call and public address systems

Prepared by:

Cepma Engineering Worx (Pty) Ltd

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

Item  
No

Quantity

Rate

Amount

**BILL NO. 6****FIRE PROTECTION**Descriptions and preambles:

1. For preambles see "Standard Preambles to all Trades Rev 3 - DoH 2009"
2. Contractor is referred to Trades to follow hereafter for preambles and full descriptions of materials and items not fully described in this Trade and which shall apply equally to work in this Trade, unless otherwise described

Trade Names and Proprietary Products:

1. All descriptions or clauses where trade names or proprietary products are specified, are deemed to include the phrase "or other approved"

**SUPPLEMENTARY PREAMBLES**Reference to drawings and project specification documentation:

1. Contractors to make reference to drawings and project specification documentation that forms part of these Bills of Quantities for all installations and procedures required for the installation or execution of these works

Carried to Collection

R

Section No. 3

Bill No. 6

Fire protection

Prepared by:

Cepma Engineering Worx (Pty) Ltd

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male & Female  
Inpatient & Outpatient Mental Health UnitMaterial samples:

1. Before commencement of any work, the contractor will be required to timeously supply a sample of the material to be used to the Principal Agent for approval at no cost
2. Material installed without prior approval from the Principal Agent will be removed at the contractor's cost

Carried to Collection

R

Section No. 3

Bill No. 6

Fire protection

Prepared by:

Cepma Engineering Worx (Pty) Ltd



General:

1. All details and dimensions shown on the drawings are subject to confirmation on site and during construction. All dimensions and levels are to be confirmed on site before commencement of the works
2. All levels on structural drawings refer to the top of concrete, steel, etc. unless otherwise indicated
3. The Contractor is to comply at all times with all the relevant municipal regulations, conditions of approval and bylaws in the area of the site and is to ensure that a set of approved building plans is on site at all times
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6. All products specified for use are to be used in strict accordance with the manufacturer's specifications and where applicable by an approved manufacturer's applicator or installer
7. Products different to those specified in the specification documentation shall only be used with prior approval of the relevant design consultant

Carried to Collection

R

Section No. 3

Bill No. 6

Fire protection

Prepared by:

Cepma Engineering Worx (Pty) Ltd

Shop drawings:

1. Shop drawings are to be provided for all elements that are to be fabricated by the contractor's fabricator or supplier
2. All shop drawings are to be submitted to the relevant design consultant or Principal Agent for approval prior to the commencement of fabrication
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Samples:

1. A sample of any approved product must be delivered to site for sign off by the relevant design consultant or Principal Agent prior to commencement of the installation

**FIRE PROTECTION INSTALLATION**

1	Supply, Erection, Microprocessor based addressable fire alarm control panel with built in loop cards. FACP shall have capacity to look upto minimum of 100 devices per loop i.e.50 detectors & 50 modules	No	4
2	Repeater FACP with loop cards Analog addressable fire alarm networking control panel with built-in loop cards, with built – in TCP/IP Converter module & Auto-tel dial	No	1
3	RS 232/485 Network Communication Module	No	4
4	Supply, erection, testing and commissioning of optic smoke detector with multiple sensitivity( adjustable at site) levels, programmable for timed automatic sensitivity selection with base, Junction box and other accessories as required and detectors shall be UL listed	No	135

Carried to Collection

R

Section No. 3

Bill No. 6

Fire protection

Prepared by:

Cepma Engineering Worx (Pty) Ltd

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male & Female  
Inpatient & Outpatient Mental Health Unit

5	Supply, Erection, Testing Commissioning of heat detector	No	20		
6	Supply, Erection, Testing, Commissioning of fire warning strobe light and Electronic Hooter giving output of 65db maximum or 5 db above any noise tends to exist and fire warning light. The hooter and strobe light shall be of wall mounted type. The rate shall include for mounting accessories, etc. complete	No	20		
7	Supply, Erection, Testing and Commissioning of Addressable manual call station with necessary break glass hammer with chain and push button. The manual call station shall be of wall mounted with necessary mounting and fixing arrangement and etc., complete. As per IS 2189	No	20		
8	Supplying, laying, testing and commissioning of fire resistant PH120 cables with Including necessary end terminations	m	5,000		
9	Control module for integrated to master panel (If required) shall be capable of providing provision for zone panel	No	4		
10	Addressable Fault isolator module capable of monitoring shorted loop circuit and automatically restore communications when shorted conditions are corrected	No	4		
11	Miscellaneous and non-standard installation material, including software and programming		Item		
12	Adjust the settings on the devices and equipment, wire control devices, test and programme, put in operation, verify functionality of the system and train users, develop operation manual		Item		
Carried to Collection					R
Section No. 3					
Bill No. 6					
Fire protection					
Prepared by:					
Cepma Engineering Worx (Pty) Ltd					



FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

Section No. 3

Bill No. 6

Fire protection

**COLLECTION**

Total Brought Forward from Page No.

Page  
No

Amount

282

283

284

285

286

Carried Forward to Summary of Section No. 3

R

Section No. 3

Bill No. 6

Fire protection

Prepared by:

Cepma Engineering Worx (Pty) Ltd

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male & Female  
Inpatient & Outpatient Mental Health UnitItem  
No

Quantity

Rate

Amount

**BILL NO. 7****CCTV**Descriptions and preambles:

1. For preambles see "Standard Preambles to all Trades Rev 3 - DoH 2009"
2. Contractor is referred to Trades to follow hereafter for preambles and full descriptions of materials and items not fully described in this Trade and which shall apply equally to work in this Trade, unless otherwise described

Trade Names and Proprietary Products:

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**SUPPLEMENTARY PREAMBLES**Reference to drawings and project specification documentation:

1. Contractors to make reference to drawings and project specification documentation that forms part of these Bills of Quantities for all installations and procedures required for the installation or execution of these works

Carried to Collection

R

Section No. 3  
Bill No. 7  
CCTV

Prepared by:  
Cepma Engineering Worx (Pty) Ltd

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male & Female  
Inpatient & Outpatient Mental Health UnitMaterial samples:

1. Before commencement of any work, the contractor will be required to timeously supply a sample of the material to be used to the Principal Agent for approval at no cost
2. Material installed without prior approval from the Principal Agent will be removed at the contractor's cost

Carried to Collection

R

Section No. 3

Bill No. 7

CCTV

Prepared by:

Cepma Engineering Worx (Pty) Ltd



General:

1. All details and dimensions shown on the drawings are subject to confirmation on site and during construction. All dimensions and levels are to be confirmed on site before commencement of the works
2. All levels on structural drawings refer to the top of concrete, steel, etc. unless otherwise indicated
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7. Products different to those specified in the specification documentation shall only be used with prior approval of the relevant design consultant

Carried to Collection

Section No. 3

Bill No. 7

CCTV

Prepared by:

Cepma Engineering Worx (Pty) Ltd

R

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

Shop drawings:

1. Shop drawings are to be provided for all elements that are to be fabricated by the contractor's fabricator or supplier
2. All shop drawings are to be submitted to the relevant design consultant or Principal Agent for approval prior to the commencement of fabrication
3. Any fabricated elements installed without prior approval by the relevant design consultant or Principal Agent will be removed at the contractor's cost

Samples:

1. A sample of any approved product must be delivered to site for sign off by the relevant design consultant or Principal Agent prior to commencement of the installation

**CCTV INSTALLATION****Supply, deliver and install Head-end Equipment:**

1	27U Wallbox, Swing Frame, 600mm Deep, Black	No	2
2	Supply and install 64 Channel NVR 2 way audio input, 1-Ch incoming bandwidth 200Mbps, up to 16TB SATA hard drive, "Hikvision" or any equally approved brand with SABS Approval	No	2
3	TV Wall mounting bracket 34-63"	No	5
4	Wireless Keyboard & Mouse	No	5
5	28 Port 10/100/1000 Switch with 24 Ports POE, "NETGEAR" or other approved brand	No	4
6	LED 52" HD ready TV complete with mounting brackets	No	4

Carried to Collection

R

Section No. 3

Bill No. 7

CCTV

Prepared by:

Cepma Engineering Worx (Pty) Ltd

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

**Supply, deliver and install Field Units:**

7	6U Wallbox, Swing Frame, 600mm Deep, Black	No	2
8	"Eaton 5E" 1100i Interactive UPS , USB, 1100 VA / 660 W or any equally approved brand	No	4

**Supply, deliver and install cameras:**

9	IP POE high definition ceiling mounted dome camera	No	130
10	100 x 100 x 50mm Plastic enclosure	No	100
11	Cat6E Full Copper UTP Solid - 100m Roll	No	25
12	PVC 25mm Conduit, couplings, saddles etc.	No	350

Carried to Collection

R

Section No. 3

Bill No. 7

CCTV

Prepared by:

Cepma Engineering Worx (Pty) Ltd



FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

Section No. 3

Bill No. 7

CCTV

**COLLECTION**

Total Brought Forward from Page No.

**Page  
No****Amount**

288

289

290

291

292

**Carried Forward to Summary of Section No. 3**

R

Section No. 3

Bill No. 7

CCTV

**Prepared by:****Cepma Engineering Worx (Pty) Ltd**

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

Item No	Quantity	Rate	Amount
<b><u>BILL NO. 8</u></b>			
<b><u>DATA AND TELEPHONE</u></b>			
<u>Descriptions and preambles:</u>			
1. For preambles see "Standard Preambles to all Trades Rev 3 - DoH 2009"			
2. Contractor is referred to Trades to follow hereafter for preambles and full descriptions of materials and items not fully described in this Trade and which shall apply equally to work in this Trade, unless otherwise described			
<u>Trade Names and Proprietary Products:</u>			
1. All descriptions or clauses where trade names or proprietary products are specified, are deemed to include the phrase "or other approved"			
<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
<u>Reference to drawings and project specification documentation:</u>			
1. Contractors to make reference to drawings and project specification documentation that forms part of these Bills of Quantities for all installations and procedures required for the installation or execution of these works			
Carried to Collection		R	
Section No. 3			
Bill No. 8			
Data and telephone			
Prepared by:			
Cepma Engineering Worx (Pty) Ltd			

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male & Female  
Inpatient & Outpatient Mental Health UnitMaterial samples:

1. Before commencement of any work, the contractor will be required to timeously supply a sample of the material to be used to the Principal Agent for approval at no cost
2. Material installed without prior approval from the Principal Agent will be removed at the contractor's cost

Carried to Collection

R

Section No. 3

Bill No. 8

Data and telephone

Prepared by:

Cepma Engineering Worx (Pty) Ltd



General:

1. All details and dimensions shown on the drawings are subject to confirmation on site and during construction. All dimensions and levels are to be confirmed on site before commencement of the works
2. All levels on structural drawings refer to the top of concrete, steel, etc. unless otherwise indicated
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4. All specification documentation, drawings, etc. shall be available on site at all times
5. The Contractor shall at all times be fully responsible for quality control on site ensuring strict compliance with all drawings, details and specifications issued by the relevant design consultant. The Contractor shall submit a quality control plan for each portion of work prior to the commencement for acceptance. The works shall only commence on acceptance of the quality plan by the relevant design consultant
6. All products specified for use are to be used in strict accordance with the manufacturer's specifications and where applicable by an approved manufacturer's applicator or installer
7. Products different to those specified in the specification documentation shall only be used with prior approval of the relevant design consultant

Carried to Collection

Section No. 3

Bill No. 8

Data and telephone

Prepared by:

Cepma Engineering Worx (Pty) Ltd

R

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male & Female  
Inpatient & Outpatient Mental Health UnitShop drawings:

1. Shop drawings are to be provided for all elements that are to be fabricated by the contractor's fabricator or supplier
2. All shop drawings are to be submitted to the relevant design consultant or Principal Agent for approval prior to the commencement of fabrication
3. Any fabricated elements installed without prior approval by the relevant design consultant or Principal Agent will be removed at the contractor's cost

Samples:

1. A sample of any approved product must be delivered to site for sign off by the relevant design consultant or Principal Agent prior to commencement of the installation

**DATA AND TELEPHONE INSTALLATION****Supply and install telephone termination panel (telkom approved lockable with wooden back panel):**

1	Supply Telkom approved telephone panel in equipment room or Telkom service shaft	No	1
2	Supply and install CAT6 for telephone cables in 100m rolls	No	5
3	Supply and install new IP DCS, digital communications systems/ PABX which can accommodate a minimum of 4 incoming calls and 20 extensions with capability of expansions to more than 40 incoming calls and 100 extensions	No	1

Carried to Collection

R

Section No. 3

Bill No. 8

Data and telephone

Prepared by:

Cepma Engineering Worx (Pty) Ltd

<b><u>RJ45 telephone outlets including shroud and mounting plate:</u></b>			
4	Supply	No	50
5	Installation	No	50
<b><u>Underground excavations for fibre installation:</u></b>			
6	Excavate trenches 600mm deep and 400mm wide on soft ground	m	300
7	Excavate trenches 600mm deep and 400mm wide on hard rock	m	100
<b><u>Backfilling and compaction of trenches:</u></b>			
8	Back fill and compact trenches 600mm deep and 400mm wide	m	400
<b><u>Installation of PVC sleeves:</u></b>			
9	Supply and install 110mm PVC sleeves for fibre installation	m	400
10	Supply and install 110mm PVC sleeves for telephone installation	m	400
11	Supply and install 110mm PVC sleeves for public address system	m	400
<b><u>Installation of manholes to house three sleeves for data, telephone and public address systems:</u></b>			
12	Supply and erect brick manholes with concrete flooring, 1200mm deep and 800mm wide with lockable vandal proof lid	No	2
<b><u>Supply, deliver and install internet fibre cable:</u></b>			
13	Supply and install internet G652D multi mode fibre optic cable	m	600
<b>Carried to Collection</b>			
Section No. 3 Bill No. 8 Data and telephone Prepared by: Cepma Engineering Worx (Pty) Ltd			



FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

<u>Supply and install RJ45 data outlets flush on power skirting including shroud and mounting plate:</u>					
14	Supply	No	50		
15	Installation	No	50		
<u>Supply and install RJ45 boots:</u>					
16	Supply	No	50		
17	Installation	No	50		
<u>Supply, deliver and install computer network cables terminating at patch panel in server room:</u>					
18	Supply and install CAT6 internet cables in 100m rolls	No	5		
19	Supply and install 1m CAT 6 patch cables	No	50		
<u>Supply and install Lockable wall mounted 12U 19" rack cabinet, fitted with a patch frame, to accommodate a minimum of three switches, housed in the server room:</u>					
20	Lockable wall mounted 12U 19" rack cabinet	No	1		
<u>Supply and install switches and routers:</u>					
21	Supply and install optic fibre router with capability of fibre splitting	No	2		
22	Supply and install 1 gigabyte, CAT6, 48 port switch	No	1		
23	Supply and install CAT6, 48 port patch panel	No	1		
24	Supply and install 48 port patch panel	No	1		
25	Supply and install CAT6, 48 port patch panel frame	No	1		
Carried to Collection				R	
Section No. 3					
Bill No. 8					
Data and telephone					
Prepared by:					
Cepma Engineering Worx (Pty) Ltd					

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

Section No. 3

Bill No. 8

Data and telephone

**COLLECTION**

Total Brought Forward from Page No.

Page  
No

Amount

294

295

296

297

298

299

Carried Forward to Summary of Section No. 3

R

Section No. 3

Bill No. 8

Data and telephone

Prepared by:

Cepma Engineering Worx (Pty) Ltd

Item No	Quantity	Rate	Amount
<b><u>BILL NO. 9</u></b>			
<b><u>ACCESS CONTROL</u></b>			
<u>Descriptions and preambles:</u>			
1. For preambles see "Standard Preambles to all Trades Rev 3 - DoH 2009"			
2. Contractor is referred to Trades to follow hereafter for preambles and full descriptions of materials and items not fully described in this Trade and which shall apply equally to work in this Trade, unless otherwise described			
<u>Trade Names and Proprietary Products:</u>			
1. All descriptions or clauses where trade names or proprietary products are specified, are deemed to include the phrase "or other approved"			
<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
<u>Reference to drawings and project specification documentation:</u>			
1. Contractors to make reference to drawings and project specification documentation that forms part of these Bills of Quantities for all installations and procedures required for the installation or execution of these works			
Carried to Collection			R
Section No. 3			
Bill No. 9			
Access control			
Prepared by:			
Cepma Engineering Worx (Pty) Ltd			



FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

Material samples:

1. Before commencement of any work, the contractor will be required to timeously supply a sample of the material to be used to the Principal Agent for approval at no cost
2. Material installed without prior approval from the Principal Agent will be removed at the contractor's cost

Carried to Collection

R

Section No. 3

Bill No. 9

Access control

Prepared by:

Cepma Engineering Worx (Pty) Ltd

General:

1. All details and dimensions shown on the drawings are subject to confirmation on site and during construction. All dimensions and levels are to be confirmed on site before commencement of the works
2. All levels on structural drawings refer to the top of concrete, steel, etc. unless otherwise indicated
3. The Contractor is to comply at all times with all the relevant municipal regulations, conditions of approval and bylaws in the area of the site and is to ensure that a set of approved building plans is on site at all times
4. All specification documentation, drawings, etc. shall be available on site at all times
5. The Contractor shall at all times be fully responsible for quality control on site ensuring strict compliance with all drawings, details and specifications issued by the relevant design consultant. The Contractor shall submit a quality control plan for each portion of work prior to the commencement for acceptance. The works shall only commence on acceptance of the quality plan by the relevant design consultant
6. All products specified for use are to be used in strict accordance with the manufacturer's specifications and where applicable by an approved manufacturer's applicator or installer
7. Products different to those specified in the specification documentation shall only be used with prior approval of the relevant design consultant

Carried to Collection

R

Section No. 3

Bill No. 9

Access control

Prepared by:

Cepma Engineering Worx (Pty) Ltd

Shop drawings:

1. Shop drawings are to be provided for all elements that are to be fabricated by the contractor's fabricator or supplier
2. All shop drawings are to be submitted to the relevant design consultant or Principal Agent for approval prior to the commencement of fabrication
3. Any fabricated elements installed without prior approval by the relevant design consultant or Principal Agent will be removed at the contractor's cost

Samples:

1. A sample of any approved product must be delivered to site for sign off by the relevant design consultant or Principal Agent prior to commencement of the installation

**ACCESS CONTROL SYSTEM INSTALLATION****Supply, deliver and install:**

1	MDR: Impro non-keypad multi-discipline reader (MDR) with buzzer, tricoloured LED and 10 way	No	60
2	IPS boxed solution with no LCD cluster controller, with one Wiegand reader module (supports 2 readers)	No	30
3	Single Wiegand reader module (supports 2 readers) for use with a cluster controller in an IPS box	No	30
4	Exit Sensor - No Touch 12VDC	No	7
5	Green Call Point + Smash break glass	No	47
6	MYLA Cable 4 pair per 100m roll	No	50

Carried to Collection

R

Section No. 3

Bill No. 9

Access control

Prepared by:

Cepma Engineering Worx (Pty) Ltd



FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male & Female  
Inpatient & Outpatient Mental Health Unit

7	PSU + battery	No	47
8	Maglock	No	47
9	ZL bracket from "IntelliSEC" or any equally approved	No	47
10	6U server rack	No	3
11	CAT6 Cable per 100m roll	No	30
12	Consumables, conduit, trunking etc.	No	50
13	28 port Network switch	No	6
14	Desk mounted tag registration reader	No	1
15	Rectangular key ring tag	No	300
16	Portal basic software	No	1
17	I7 "Dell" server or other approved	No	1
18	Labour on the above installation		Item

Carried to Collection

R

Section No. 3

Bill No. 9

Access control

Prepared by:

Cepma Engineering Worx (Pty) Ltd

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male & Female  
Inpatient & Outpatient Mental Health Unit

Section No. 3

Bill No. 9

Access control

**COLLECTION**

Total Brought Forward from Page No.

Page  
No

Amount

301

302

303

304

305

Carried Forward to Summary of Section No. 3

R

Section No. 3

Bill No. 9

Access control

Prepared by:

Cepma Engineering Worx (Pty) Ltd

Bill No		Page No	Amount
1	Preliminaries and general	245	
2	Infrastructure and building works	259	
3	Lightening protection	267	
4	Solar installation	274	
5	Nurse call and public address systems	281	
6	Fire protection	287	
7	CCTV	293	
8	Data and telephone	300	
9	Access control	306	
<b>Carried to Final Summary</b>			R
Section No. 3			
Prepared by:			
Cepma Engineering Worx (Pty) Ltd			

Section No. 3  
Prepared by:  
**Cepma Engineering Worx (Pty) Ltd**





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**KWAZULU-NATAL PROVINCE**

**PUBLIC WORKS & INFRASTRUCTURE**  
**REPUBLIC OF SOUTH AFRICA**

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**NEW 28 BEDDED MALE & FEMALE INPATIENT & OUTPATIENT MENTAL HEALTH UNIT**

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**PART C2.5 Bills of Quantities - Section No. 4:**  
**MECHANICAL WORKS**

-308-

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

Where any item is not relevant to this specific contract such item is marked N/A (signifying "not applicable")

Adjustment of the preliminaries: each item priced, is to be allocated to one or more of the three categories, where "F" denotes a fixed amount (amount not to be varied), "V" denotes an amount variable in proportion to value and "T" denotes an amount in proportion to time

Time (T) related Preliminaries will only be adjusted for omissions or additions, issued by the Employer, or delays caused by the Employer, for which variation and extension of time has been granted. See Contract Data

Supplementary preambles:

(1.) Allow for all the preliminary and general items required to provide the health and safety; mechanical and electrical installation for this project but excluding items priced elsewhere in these Bills (The amounts will be paid pro rata to the rest of the amounts claimed by the contractors relative to the tender amount)

**CONTRACTUAL REQUIREMENTS**

- 1 Tenderers to allow for compliance with all the conditions of the contract

F:..... V:..... T:.....

Item

**JOINT TRADES**

- 2 Tenderers to allow for all costs which may be required in order to co-ordinate and liaise with the other Trade Contractors, especially with the electrical contractor

F:..... V:..... T:.....

Item

**Carried to Collection**

R

Section No. 4

Bill No. 1

Preliminaries and general

**Prepared by:**

**Cepma Engineering Worx (Pty) Ltd**



FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

**SUPERVISOR**

- 3 Tenderer to allow for a full time working supervisor during the duration of the contract, who shall have the delegated authority to receive instructions and make decisions regarding the contract

F:..... V:..... T:.....

Item

**SITE ESTABLISHMENT**

- 4 Tenderers to allow for all costs which may be required in order to place the necessary facilities on site for safe storage and orderly management purposes for the duration of the contract

F:..... V:..... T:.....

Item

**REMOVAL OF WASTE**

- 5 Tenderer to allow for all costs associated with cleaning the site of all rubbish and waste caused by this contract

F:..... V:..... T:.....

Item

**HEALTH AND SAFETY**

- 6 Allow for Health, Safety and Environmental in accordance with the Specification

F:..... V:..... T:.....

Item

**GENERAL ITEMS**

**Any additional, items that the Tenderer deems necessary for the successful and total completion of the portion of the work required for these Bill specify:**

- 7 Out of town allowance, accommodation & travelling

F:..... V:..... T:.....

Item

Carried to Collection

R

Section No. 4

Bill No. 1

Preliminaries and general

Prepared by:

Cepma Engineering Worx (Pty) Ltd

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

8	Construction guarantee F:..... V:..... T:.....	Item
9	Protection against damage, hoisting and rigging F:..... V:..... T:.....	Item
10	Allow for builders work, drilling and making good of holes through slabs or walls including sleeves F:..... V:..... T:.....	Item
11	Allow for painting and labelling of equipment as specified F:..... V:..... T:.....	Item
12	Allow for Commissioning and testing the complete installation as specified F:..... V:..... T:.....	Item
13	Allow for three sets of maintenance and operation manuals, including wiring diagrams, spare part lists as specified F:..... V:..... T:.....	Item
14	Allow for twelve months free maintenance and guarantee F:..... V:..... T:.....	Item
15	Allow for instructing the clients staff in the correct operation of the installation F:..... V:..... T:.....	Item
16	Allow for preparation of "as installed drawings" and printing (3 sets) F:..... V:..... T:.....	Item

Carried to Collection

R

Section No. 4

Bill No. 1

Preliminaries and general

Prepared by:

Cepma Engineering Worx (Pty) Ltd

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

- 17 Allow for preparation of Workshop drawings and printing  
(3 sets)

F:..... V:..... T:.....

Item

- 18 Allow for scaffolding

F:..... V:..... T:.....

Item

- 19 Any items not specifically listed above but required to  
complete the installation as per the specification and  
drawings (list the items)

F:..... V:..... T:.....

Item

Carried to Collection

R

Section No. 4

Bill No. 1

Preliminaries and general

Prepared by:

Cepma Engineering Worx (Pty) Ltd



FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

Section No. 4

Bill No. 1

Preliminaries and general

**COLLECTION**

Total Brought Forward from Page No.

Page  
No

Amount

308

309

310

311

312

Carried Forward to Summary of Section No. 4

R

Section No. 4

Bill No. 1

Preliminaries and general

Prepared by:

Cepma Engineering Worx (Pty) Ltd

Item No		Quantity	Rate	Amount
	<b><u>BILL NO. 2</u></b>			
	<b><u>INTERNAL SEWER RETICULATION</u></b>			
	<u>Descriptions and preambles:</u>			
	1. For preambles see "Standard Preambles to all Trades Rev 3 - DoH 2009"			
	2. Contractor is referred to Trades to follow hereafter for preambles and full descriptions of materials and items not fully described in this Trade and which shall apply equally to work in this Trade, unless otherwise described			
	<u>Trade Names and Proprietary Products:</u>			
	1. All descriptions or clauses where trade names or proprietary products are specified, are deemed to include the phrase "or other approved"			
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>			
	<u>Reference to drawings and project specification documentation:</u>			
	1. Contractors to make reference to drawings and project specification documentation that forms part of these Bills of Quantities for all installations and procedures required for the installation or execution of these works			
	<b>Carried to Collection</b>		R	
	Section No. 4			
	Bill No. 2			
	Internal sewer reticulation			
	<b>Prepared by:</b>			
	<b>Cepma Engineering Worx (Pty) Ltd</b>			

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

Material samples:

1. Before commencement of any work, the contractor will be required to timeously supply a sample of the material to be used to the Principal Agent for approval at no cost
2. Material installed without prior approval from the Principal Agent will be removed at the contractor's cost

Carried to Collection

R

Section No. 4

Bill No. 2

Internal sewer reticulation

Prepared by:

Cepma Engineering Worx (Pty) Ltd



FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male & Female  
Inpatient & Outpatient Mental Health UnitGeneral:

1. All details and dimensions shown on the drawings are subject to confirmation on site and during construction. All dimensions and levels are to be confirmed on site before commencement of the works
2. All levels on structural drawings refer to the top of concrete, steel, etc. unless otherwise indicated
3. The Contractor is to comply at all times with all the relevant municipal regulations, conditions of approval and bylaws in the area of the site and is to ensure that a set of approved building plans is on site at all times
4. All specification documentation, drawings, etc. shall be available on site at all times
5. The Contractor shall at all times be fully responsible for quality control on site ensuring strict compliance with all drawings, details and specifications issued by the relevant design consultant. The Contractor shall submit a quality control plan for each portion of work prior to the commencement for acceptance. The works shall only commence on acceptance of the quality plan by the relevant design consultant
6. All products specified for use are to be used in strict accordance with the manufacturer's specifications and where applicable by an approved manufacturer's applicator or installer
7. Products different to those specified in the specification documentation shall only be used with prior approval of the relevant design consultant

Carried to Collection

R

Section No. 4

Bill No. 2

Internal sewer reticulation

Prepared by:

Cepma Engineering Worx (Pty) Ltd

Shop drawings:

1. Shop drawings are to be provided for all elements that are to be fabricated by the contractor's fabricator or supplier
2. All shop drawings are to be submitted to the relevant design consultant or Principal Agent for approval prior to the commencement of fabrication
3. Any fabricated elements installed without prior approval by the relevant design consultant or Principal Agent will be removed at the contractor's cost

Samples:

1. A sample of any approved product must be delivered to site for sign off by the relevant design consultant or Principal Agent prior to commencement of the installation

**SEWER INSTALLATION**

**For the Supply, delivery, installation and commissioning of pipes and fittings (UPVC Class 2 in accordance to SANS 966-1 ) including all necessary fixations and equal couplings in the running lengths fixed to soffit, walls, or chased into walls, etc.**

**uPVC Pipe:**

1	50 mm uPVC pipe	m	304
2	110 mm uPVC pipe	m	336
3	160 mm uPVC pipe	m	36

**uPVC Y-Junction 45°:**

4	uPVC d=50mm-d1=50mm-d2=50mm	No	32
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Carried to Collection

Section No. 4

Bill No. 2

Internal sewer reticulation

Prepared by:

Cepma Engineering Worx (Pty) Ltd

R

5	uPVC d=110mm-d1=110mm-d2=110mm	No	80
6	uPVC d=110mm-d1=110mm-d2=50mm	No	90
7	uPVC Double Junction d1=110mm-d2=110mm d3=110mm d4=110mm	No	10
<b><u>uPVC T-Piece 90°:</u></b>			
8	uPVC d=50mm-d1=50mm-d2=50mm	No	5
9	uPVC d=110mm-d1=110mm-d2=110mm	No	5
10	uPVC d=110mm-d1=110mm-d2=50mm	No	5
11	uPVC Double Junction d1=110mm-d2=110mm d3=50mm d4=50mm	No	4
<b><u>uPVC reducer:</u></b>			
12	uPVC reducer: d=160mm, d1=110mm	No	10
13	uPVC reducer: d=110mm, d1=50mm	No	15
<b><u>uPVC Bends:</u></b>			
14	uPVC bend: 45°, d=50mm	No	100
15	uPVC bend: 45°, d=110mm	No	68
16	uPVC bend : 90°, d=50mm	No	204
17	uPVC bend : 90°, d=110mm	No	75
<b><u>uPVC end caps, etc.:</u></b>			
18	110 mm end caps	No	45
19	50mm end caps	No	10

Carried to Collection

R

Section No. 4

Bill No. 2

Internal sewer reticulation

Prepared by:

Cepma Engineering Worx (Pty) Ltd



FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male & Female  
Inpatient & Outpatient Mental Health UnitAir admittance valves:

20 110mm diameter

No

15

uPVC Kimberley sockets:

21 110mm diameter

No

10

22 50mm diameter

No

10

Carried to Collection

R

Section No. 4

Bill No. 2

Internal sewer reticulation

Prepared by:

Cepma Engineering Worx (Pty) Ltd

Section No. 4

Bill No. 2

Internal sewer reticulation

**COLLECTION**

Total Brought Forward from Page No.

Page  
No

Amount

314

315

316

317

318

319

Carried Forward to Summary of Section No. 4

R

Section No. 4

Bill No. 2

Internal sewer reticulation

Prepared by:

Cepma Engineering Worx (Pty) Ltd

Item  
No

Quantity

Rate

Amount

**BILL NO. 3****HOT AND COLD WATER**Descriptions and preambles:

1. For preambles see "Standard Preambles to all Trades Rev 3 - DoH 2009"
2. Contractor is referred to Trades to follow hereafter for preambles and full descriptions of materials and items not fully described in this Trade and which shall apply equally to work in this Trade, unless otherwise described

Trade Names and Proprietary Products:

1. All descriptions or clauses where trade names or proprietary products are specified, are deemed to include the phrase "or other approved"

**SUPPLEMENTARY PREAMBLES**Reference to drawings and project specification documentation:

1. Contractors to make reference to drawings and project specification documentation that forms part of these Bills of Quantities for all installations and procedures required for the installation or execution of these works

Carried to Collection

R

Section No. 4

Bill No. 3

Hot and cold water

Prepared by:

Cepma Engineering Worx (Pty) Ltd



FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

Material samples:

1. Before commencement of any work, the contractor will be required to timeously supply a sample of the material to be used to the Principal Agent for approval at no cost
2. Material installed without prior approval from the Principal Agent will be removed at the contractor's cost

Carried to Collection

R

Section No. 4

Bill No. 3

Hot and cold water

Prepared by:

Cepma Engineering Worx (Pty) Ltd

General:

1. All details and dimensions shown on the drawings are subject to confirmation on site and during construction. All dimensions and levels are to be confirmed on site before commencement of the works
2. All levels on structural drawings refer to the top of concrete, steel, etc. unless otherwise indicated
3. The Contractor is to comply at all times with all the relevant municipal regulations, conditions of approval and bylaws in the area of the site and is to ensure that a set of approved building plans is on site at all times
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6. All products specified for use are to be used in strict accordance with the manufacturer's specifications and where applicable by an approved manufacturer's applicator or installer
7. Products different to those specified in the specification documentation shall only be used with prior approval of the relevant design consultant

Carried to Collection

R

Section No. 4

Bill No. 3

Hot and cold water

Prepared by:

Cepma Engineering Worx (Pty) Ltd

Shop drawings:

1. Shop drawings are to be provided for all elements that are to be fabricated by the contractor's fabricator or supplier
2. All shop drawings are to be submitted to the relevant design consultant or Principal Agent for approval prior to the commencement of fabrication
3. Any fabricated elements installed without prior approval by the relevant design consultant or Principal Agent will be removed at the contractor's cost

Samples:

1. A sample of any approved product must be delivered to site for sign off by the relevant design consultant or Principal Agent prior to commencement of the installation

**HOT AND COLD WATER INSTALLATIONS**Associated pipework and fittings:

For the Supply, delivery, installation and commissioning of pipe (Geberit Mepla or other approved) including all necessary fixations and equal couplings in the running lengths fixed to soffit, walls, or chased into walls, etc.

**Straight Pipe specified to be "Geberit Mepla" similar or other approved:**

1	System pipe, ML, in bars: d=20mm, L=5m	m	1,450
2	System pipe, ML, in bars: d=26mm, L=5m	m	710
3	System pipe, ML, in bars: d=32mm, L=5m	m	245
4	System pipe, ML, in bars: d=40mm, L=5m	m	145

Carried to Collection

Section No. 4

Bill No. 3

Hot and cold water

Prepared by:

Cepma Engineering Worx (Pty) Ltd

R



FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

5	System pipe, ML, in bars: d=50mm, L=5m	m	125
6	System pipe, ML, in bars: d=63mm, L=5m	m	10
7	System pipe, ML, in bars: d=75mm, L=5m	m	25
<b><u>Red lagged insulation for hot water piping specified to be "Geberit Mepla" similar or other approved:</u></b>			
8	Diameter 20mm	m	720
9	Diameter 26mm	m	380
10	Diameter 32mm	m	170
11	Diameter 40mm	m	100
12	Diameter 50mm	m	30
<b><u>For the Supply, delivery, installation and commissioning of Extra over pipe for fittings (Geberit Mepla Gunmetal or other approved) including all necessary crimps fixed to soffit, walls, or chased into walls, etc.</u></b>			
<b><u>BENDS-90° specified to be "Geberit Mepla" similar or other approved:</u></b>			
13	Elbow: 90°, d=20mm	No	635
14	Elbow: 90°, d=26mm	No	167
15	Elbow: 90°, d=32mm	No	115
16	Elbow: 90°, d=40mm	No	18
17	Elbow: 90°, d=50mm	No	30
18	Elbow: 90°, d=63mm	No	10
19	Elbow: 90°, d=75mm	No	8

Carried to Collection

R

Section No. 4

Bill No. 3

Hot and cold water

Prepared by:

Cepma Engineering Worx (Pty) Ltd

<u>Coupling specified to be "Geberit Mepla" similar or other approved:</u>					
20	Coupling: d=20mm	No	300		
21	Coupling: d=26mm	No	150		
22	Coupling: d=32mm	No	60		
23	Coupling: d=40mm	No	40		
24	Coupling: d=50mm	No	35		
25	Coupling: d=63mm	No	10		
26	Coupling: d=75mm	No	10		
<u>Tees specified to be "Geberit Mepla" similar or other approved:</u>					
27	T-piece, equal: d=20mm	No	23		
28	T-piece, equal: d=26mm	No	35		
29	T-piece, equal: d=32mm	No	22		
30	T-piece, equal: d=40mm	No	12		
31	T-piece, equal: d=50mm	No	5		
32	T-piece, equal: d=63mm	No	5		
33	T-piece, reduced: d=26mm, d1=26mm, d2=20mm	No	115		
34	T-piece, reduced: d=26mm, d1=20mm, d2=20mm	No	65		
35	T-piece, reduced: d=32mm, d1=26mm, d2=20mm	No	4		
36	T-piece, reduced: d=32mm, d1=26mm, d2=26mm	No	15		
37	T-piece, reduced: d=32mm, d1=32mm, d2=20mm	No	15		
Carried to Collection				R	
Section No. 4					
Bill No. 3					
Hot and cold water					
Prepared by:					
Cepma Engineering Worx (Pty) Ltd					

38	T-piece, reduced: d=32mm, d1=32mm, d2=26mm	No	15
39	T-piece, reduced: d=40mm, d1=40mm, d2=20mm	No	10
40	T-piece, reduced: d=40mm, d1=40mm, d2=32mm	No	10
41	T-piece, reduced: d=40mm, d1=40mm, d2=26mm	No	12
42	T-piece, reduced: d=50mm, d1=50mm, d2=26mm	No	12
43	T-piece, reduced: d=50mm, d1=50mm, d2=32mm	No	8
44	T-piece, reduced: d=63mm, d1=63mm, d2=40mm	No	5
45	T-piece, reduced: d=63mm, d1=63mm, d2=32mm	No	4
46	T-piece, reduced: d=63mm, d1=63mm, d2=40mm	No	5
47	T-piece, reduced: d=75mm, d1=75mm, d2=75mm	No	3

**Reducer specified to be "Geberit Mepla" similar or other approved:**

48	Reducer: d=26mm, d1=20mm	No	20
49	Reducer: d=32mm, d1=20mm	No	14
50	Reducer: d=32mm, d1=26mm	No	12
51	Reducer: d=40mm, d1=26mm	No	5
52	Reducer: d=40mm, d1=32mm	No	10
53	Reducer: d=50mm, d1=20mm	No	5
54	Reducer: d=50mm, d1=32mm	No	5
55	Reducer: d=50mm, d1=40mm	No	5
56	Reducer: d=63mm, d1=50mm	No	4
57	Reducer: d=75mm, d1=40mm	No	4

Carried to Collection

R

Section No. 4

Bill No. 3

Hot and cold water

Prepared by:

Cepma Engineering Worx (Pty) Ltd



**FACILITY: General Justice Gizenga Mpanza Regional Hospital**  
**DESCRIPTION: New 28 Bedded Male & Female**  
**Inpatient & Outpatient Mental Health Unit**

58	Reducer: d=75mm, d1=50mm	No	3
59	Reducer: d=75mm, d1=63mm	No	3
<b><u>Isolating valves "Geberit Mepla" or other approved:</u></b>			
60	20mm	No	240
61	26mm	No	40
62	32mm	No	10
63	40mm	No	5
64	50mm	No	5
65	63mm	No	5
<b><u>For the supply, delivery, installation, testing and commissioning of the following valves:</u></b>			
66	For the complete supply, delivery, installation and commissioning of DN 20,130 series balancing valves with venturic device, "Caleffi" or other approved	No	4
67	For the complete supply, delivery, installation and commissioning of DN 25,130 series balancing valves with venturic device, "Caleffi" or other approved	No	4
68	For the complete supply, delivery, installation and commissioning of DN 50,130 series balancing valves with venturic device, "Caleffi" or other approved	No	11
69	Reliance Cast Gun Metal Thermostatic Mixing Valve, 22mm BSP	No	16

**Carried to Collection**

**R**

Section No. 4

Bill No. 3

Hot and cold water

Prepared by:

Cepma Engineering Worx (Pty) Ltd

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

**For the supply, delivery, installation, testing and commissioning of the following Hot Water Plant, piping and equipment including all necessary crimps fixed to soffit, walls, or chased into walls, etc.:**

70	Supply, deliver, install and commission 1500 litre 6mm mild steel hot water vessel (Vertical orientation) with VEF glass flake internal coating, complete with isolating valves, drain cock, and all connections to pipe material specified. Operating pressure of 400kpa with 50mm mineral wool insulation with 0.8mm stainless steel sheet cladding suitable for external installation. Installation as per SANS 10254 and cladding to be suitable for local climate	No	2
71	Supply, deliver, install and commission TS6 32kW Gasketed plate and frame steam heat exchanger with all fittings, pipework, insulation, cladding, bends, tees, and necessary accessories as specified. (Alfa Laval TS6 or other approved)	No	2
72	Supply, deliver, install and commission CM3-2 A-R-A-E-AVBE F-A-A-N (Grundfos or other approved) heat pump circulation pump as specified and manufacturers recommendation. Pump to be complete with 0.46 kW Motor, Including base plate, couplings and all required valves and fittings	No	2
73	Supply, deliver, install and commission UPS 25-60 180 (Grundfos or other approved) hot water return pump (1 run and 1 standby) as specified and manufacturers recommendation. Pump to be complete with all required valves and fittings	No	4

**Associated pipework and fittings**

**For the supply, delivery, installation, testing and commissioning of the following piping including all necessary crimps fixed to soffit, walls, or chased into walls, etc. rates to include fixing and fastening requirements:**

74	15mm piping SCH40 CS	m	130
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Section No. 4

Bill No. 3

Hot and cold water

Prepared by:

Cepma Engineering Worx (Pty) Ltd

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

75	25mm piping SCH40 CS	m	15
76	50mm piping SCH40 CS	m	130
77	28mm Class 2 copper	m	48
78	54mm Class 2 copper	m	48
79	67mm Class 2 copper	m	12
80	76mm Class 2 copper	m	12
<b><u>Insulation for piping:</u></b>			
81	15mm steam piping	m	130
82	25mm steam piping	m	15
83	50mm steam piping	m	130
84	28mm Class 2 copper	m	48
85	54mm Class 2 copper	m	48
86	67mm Class 2 copper	m	12
87	76mm Class 2 copper	m	12
<b><u>For the supply, delivery, installation, testing and commissioning of the following pipe fittings, instruments and equipment including all necessary crimps fixed to soffit, walls, or chased into walls, etc, rates to include fixing and fastening requirements:</u></b>			
88	15mm Back entry pressure gauge 0-1000 kpa "Spirax Sarco" or other approved	No	2
89	15mm Back entry temperature gauge 0-120 "Spirax Sarco" or other approved	No	2
90	15mm Globe valve - "Spirax Sarco" or other approved	No	9

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R

Section No. 4

Bill No. 3

Hot and cold water

Prepared by:

Cepma Engineering Worx (Pty) Ltd



FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male & Female  
Inpatient & Outpatient Mental Health Unit

91	15mm Hill side check - "Spirax Sarco" or other approved	No	9
92	15mm Strainer - "Spirax Sarco" or other approved	No	9
93	15mm Ball float system - "Spirax Sarco" or other approved	No	9
94	15mm Non return valve - "Spirax Sarco" or other approved	No	4
95	15mm Ball valve - "Spirax Sarco" or other approved	No	4
96	15mm Separator - "Spirax Sarco" or other approved	No	4
97	15mm 150-pound flange	No	34
98	15mm Elbow SCh40 CS	No	15
99	15mm Nipples - "Spirax Sarco" or other approved	No	4
100	15mm Expansion bellow - "Spirax Sarco" or other approved	No	6
101	20mm Anode - "Spirax Sarco" or other approved	No	2
102	20mm Safety valve - "Spirax Sarco" or other approved	No	2
103	25mm globe valve - "Spirax Sarco" or other approved	No	5
104	25mm non return valve - "Spirax Sarco" or other approved	No	2
105	25mm Tee-piece - "Spirax Sarco" or other approved	No	1
106	25mm elbow SCH40 CS	No	5
107	25mm copper to male - "Spirax Sarco" or other approved	No	20
108	25mm Temperature gauge - "Spirax Sarco" or other approved	No	5

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R

Section No. 4

Bill No. 3

Hot and cold water

Prepared by:

Cepma Engineering Worx (Pty) Ltd

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

109	25mm Ball valve (return) - "Spirax Sarco" or other approved	No	6		
110	50mm Expansion bellow - "Spirax Sarco" or other approved	No	6		
111	50mm Globe valve - "Spirax Sarco" or other approved	No	10		
112	50mm Hill side check - "Spirax Sarco" or other approved	No	5		
113	50mm strainer - "Spirax Sarco" or other approved	No	5		
114	50mm ball float - "Spirax Sarco" or other approved	No	5		
115	50mm dirt pocket - "Spirax Sarco" or other approved	No	5		
116	50mm ball valves (cold feed and hot feed) - "Spirax Sarco" or other approved	No	6		
117	50mm Plug - "Spirax Sarco" or other approved	No	2		
118	50mm Temperature gauge - "Spirax Sarco" or other approved	No	5		
119	50mm copper to male - "Spirax Sarco" or other approved	No	20		
120	50mm Tee-piece - "Spirax Sarco" or other approved	No	2		
121	50mm 150-pound flange	No	34		
122	50mm Elbow SCH40 CS	No	15		
123	Din point - "Spirax Sarco" or other approved	No	2		
124	Horne valve - "Spirax Sarco" or other approved	No	2		
Carried to Collection				R	
Section No. 4					
Bill No. 3					
Hot and cold water					
Prepared by:					
Cepma Engineering Worx (Pty) Ltd					

**Allow for the craneage and rigging of the following equipment into basement area:**

- 125 Supply, deliver, install and commission 1500 litre 6mm mild steel hot water vessel (Vertical orientation) with VEF glass flake internal coating, complete with isolating valves, drain cock, and all connections to pipe material specified. Operating pressure of 400kpa with 50mm mineral wool insulation with 0.8mm stainless steel sheet cladding suitable for external installation. Installation as per SANS 10254 and cladding to be suitable for local climate (ITEM No.70)

No

2

- 126 Supply, deliver, install and commission TS6 32kW Gasketed plate and frame steam heat exchanger with all fittings, pipework, insulation, cladding, bends, tees and necessary accessories as specified. (Alfa Laval TS6 or other approved) (ITEM No.71)

No

2

**Electrical for hot water plant:**

- 127 Supply, deliver and install the electrical control and switchgear panel (IP 65), with the contractor(s), circuit breakers, Fuses, Warning lights & alarms, Over/under current protection, Phase rotation protection, Toggle switches and isolator(s) including all electrical (Schneider equipment to be used) & control wiring, cable trays, conduit (Bossal type or other approved), saddles, brackets, fittings and all necessary accessories in accordance to the specification and manufacturer's recommendations for the hot water plant installation. Allow circuit breaker, wiring and 3 pin 15amp plug point on outside of control board. Cables - ECC copper cable Galvanised MDC cable tray (Cab strut), bends & fittings including brackets & fixing, weather proof isolators, Galvanised and flexible conduit saddled/fixed to cable tray or building structure and control wiring. Electrical panel to supply the following equipment :  
2 X 32 kW Heat exchangers (Alfa Laval or other approved) 2X Hot water return pumps (Grundfos UPS 25-60-180 or other approved) 2 X Heat Pump circulation pumps CM3-2 A-R-A-E-AVBE F-A-A-N (Grundfos or other approved)

No

1

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R

Section No. 4

Bill No. 3

Hot and cold water

Prepared by:

Cepma Engineering Worx (Pty) Ltd



FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

Section No. 4

Bill No. 3

Hot and cold water

**COLLECTION**

Total Brought Forward from Page No.

Page  
No

Amount

321

322

323

324

325

326

327

328

329

330

331

332

333

Carried Forward to Summary of Section No. 4

R

Section No. 4

Bill No. 3

Hot and cold water

Prepared by:

Cepma Engineering Worx (Pty) Ltd

-335-

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

Material samples:

1. Before commencement of any work, the contractor will be required to timeously supply a sample of the material to be used to the Principal Agent for approval at no cost
2. Material installed without prior approval from the Principal Agent will be removed at the contractor's cost

Carried to Collection

R

Section No. 4

Bill No. 4

Medical gas

Prepared by:

Cepma Engineering Worx (Pty) Ltd



FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male & Female  
Inpatient & Outpatient Mental Health UnitGeneral:

1. All details and dimensions shown on the drawings are subject to confirmation on site and during construction. All dimensions and levels are to be confirmed on site before commencement of the works
2. All levels on structural drawings refer to the top of concrete, steel, etc. unless otherwise indicated
3. The Contractor is to comply at all times with all the relevant municipal regulations, conditions of approval and bylaws in the area of the site and is to ensure that a set of approved building plans is on site at all times
4. All specification documentation, drawings, etc. shall be available on site at all times
5. The Contractor shall at all times be fully responsible for quality control on site ensuring strict compliance with all drawings, details and specifications issued by the relevant design consultant. The Contractor shall submit a quality control plan for each portion of work prior to the commencement for acceptance. The works shall only commence on acceptance of the quality plan by the relevant design consultant
6. All products specified for use are to be used in strict accordance with the manufacturer's specifications and where applicable by an approved manufacturer's applicator or installer
7. Products different to those specified in the specification documentation shall only be used with prior approval of the relevant design consultant

Carried to Collection

R

Section No. 4

Bill No. 4

Medical gas

Prepared by:

Cepma Engineering Worx (Pty) Ltd

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

Shop drawings:

1. Shop drawings are to be provided for all elements that are to be fabricated by the contractor's fabricator or supplier
2. All shop drawings are to be submitted to the relevant design consultant or Principal Agent for approval prior to the commencement of fabrication
3. Any fabricated elements installed without prior approval by the relevant design consultant or Principal Agent will be removed at the contractor's cost

Samples:

1. A sample of any approved product must be delivered to site for sign off by the relevant design consultant or Principal Agent prior to commencement of the installation

**MEDICAL GAS INSTALLATION**

- |   |  |    |   |
|---|--|----|---|
| 1 | For the supply, delivery, installation and commissioning of portable vacuum pumps complete with mobile stand. "Vicotoria Thorax 11-1130" or other approved, suction capacity 43 l/min and 90 Kpa Vacuum  | No | 5 |
| 2 | For the supply, delivery, installation and commissioning of portable oxygen complete with mobile stand. 8kg (10L) oxygen cylinder complete with bullnose oxygen regulator, high concentration oxygen mask and oxygen tubing. "Afrox" or other approved | No | 5 |

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R

Section No. 4

Bill No. 4

Medical gas

Prepared by:

Cepma Engineering Worx (Pty) Ltd

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

Section No. 4

Bill No. 4

Medical gas

**COLLECTION**

Total Brought Forward from Page No.

Page  
No

Amount

335

336

337

338

Carried Forward to Summary of Section No. 4

R

Section No. 4

Bill No. 4

Medical gas

Prepared by:

Cepma Engineering Worx (Pty) Ltd



-340-

Material samples:

1. Before commencement of any work, the contractor will be required to timeously supply a sample of the material to be used to the Principal Agent for approval at no cost
2. Material installed without prior approval from the Principal Agent will be removed at the contractor's cost

Carried to Collection

R

Section No. 4

Bill No. 5

Air conditioning and ventilation

Prepared by:

Cepma Engineering Worx (Pty) Ltd

General:

1. All details and dimensions shown on the drawings are subject to confirmation on site and during construction. All dimensions and levels are to be confirmed on site before commencement of the works
2. All levels on structural drawings refer to the top of concrete, steel, etc. unless otherwise indicated
3. The Contractor is to comply at all times with all the relevant municipal regulations, conditions of approval and bylaws in the area of the site and is to ensure that a set of approved building plans is on site at all times
4. All specification documentation, drawings, etc. shall be available on site at all times
5. The Contractor shall at all times be fully responsible for quality control on site ensuring strict compliance with all drawings, details and specifications issued by the relevant design consultant. The Contractor shall submit a quality control plan for each portion of work prior to the commencement for acceptance. The works shall only commence on acceptance of the quality plan by the relevant design consultant
6. All products specified for use are to be used in strict accordance with the manufacturer's specifications and where applicable by an approved manufacturer's applicator or installer
7. Products different to those specified in the specification documentation shall only be used with prior approval of the relevant design consultant

Carried to Collection

R

Section No. 4

Bill No. 5

Air conditioning and ventilation

Prepared by:

Cepma Engineering Worx (Pty) Ltd



Shop drawings:

1. Shop drawings are to be provided for all elements that are to be fabricated by the contractor's fabricator or supplier
2. All shop drawings are to be submitted to the relevant design consultant or Principal Agent for approval prior to the commencement of fabrication
3. Any fabricated elements installed without prior approval by the relevant design consultant or Principal Agent will be removed at the contractor's cost

Samples:

1. A sample of any approved product must be delivered to site for sign off by the relevant design consultant or Principal Agent prior to commencement of the installation

**AIR CONDITIONING UNITS**

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Section No. 4

Bill No. 5

Air conditioning and ventilation

Prepared by:

Cepma Engineering Worx (Pty) Ltd

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

Supply and deliver (including air suspended transport where necessary), the following reversible heat pump Air Cooled modular Chillers complete with shell and tube exchanger, V design coils, protection modules, dual scroll compressors with thermal protection, 3 stage/ 3 phase protection, all with electrical connections, external isolator, all necessary piping, valves and fittings including anti-vibration pads/ mountings, hydrophilic coil treatment, wiring, brackets, supports and all necessary accessories, as per the specification and manufacturer's recommendation:

1	CH#1 - Total cooling capacity: 86 kW; Total heating capacity: 92 kW; Water flow Rate required: 4,3 l/s; Entering chilled water: 12°C; Leaving chilled water: 7°C; EER (@nominal conditions): 2,91; ESEER (@nominal conditions): 3,32; COP (@nominal conditions): 3,08; Capacity Steps: 2 stage; Ambient Air temperature: 35°C db max; and Sound Pressure Level at 1m - 70dbA at full load	No	2
	<u>Air Cooled Modular Chillers complete with shell and tube exchanger, V design coils, protection modules, dual scroll compressors with thermal protection, 3 stage/ 3 phase protection, all with electrical connections, external isolator, all necessary piping, valves and fittings including anti-vibration pads/ mountings, hydrophilic coil treatment, wiring, brackets, supports and all necessary accessories, as per the specification and manufacturer's recommendation. "Airco ARLSFW 90" or other approved:</u>		
2	Hail guard coil protection	No	1
3	Steel anti-vibration mountings	No	1
4	Valve cluster for each modular chiller including shut off valves, 500 micron brass strainers and balancing valves	No	2
5	Master/Slave Configuration	No	1
6	Epoxy coating of condenser coils	No	2

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R

Section No. 4

Bill No. 5

Air conditioning and ventilation

Prepared by:

Cepma Engineering Worx (Pty) Ltd

For the installation, connecting and commissioning of the complete chiller units as per above, including crantage:

- 7 "Airco ARLSFW 90" or other approved or other equal approved. (LIC)

No

2

For the supply and delivery (including air suspended transport where necessary), of the Buffer Tanks, including control, drain and refrigeration connections, panels & supports:

- 8 1500L Chilled water buffer tank, vertical 4mm end and 4mm shell thickness 400Kpa operating pressure with temperature and pressure gauges, internally and externally welded, 2 x coats primer external, Internal ISO8501 SA3 Stoncor Glass Flake lining 5 year warranty, lagged with 0.6mm Galvanised & 50mm Polyurethane), flanged connections, safety valve and anode

No

1

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Section No. 4

Bill No. 5

Air conditioning and ventilation

Prepared by:

Cepma Engineering Worx (Pty) Ltd



**Primary Chilled water pumps for CH1:**

- 9 Supply and deliver (including air suspended transport where necessary), the following primary chilled water pump sets; Hydro MPC-E-3 CRE 45-2-2 (Grundfos or other approved) centrifugal pump set (2 run and 1 standby) as specified and manufacturers recommendation. The pumps are to be complete with axial suction nozzles and discharge nozzles pointing radially upwards. Shaft to be equipped with replaceable shaft sleeve/ shaft protecting sleeve in the shaft seal area. Impeller trimmed to match the specified duty point

Including Electrical motor for each pump suitable for pump specified. Motor sized with 20% spare capacity and bedplate for pump and motor as specified. Including anchor bolts or equal and other approved. Each pump to be complete with MCC panel with single VSD, amp meter, status lamps, control relays, etc.

Pump to be complete with discharge manifold, pressure switches, pressure gauges with multi function valve on duty pump discharge, lockable isolating valves, inspectable non-return valve on discharge side of duty pump, pressure transducers, priming circuit connection, lockable isolating valves, separate pump inlets, flowmeters, thermometers, strainers for each pump, all required flanges, safety release vales, control panel in accordance with the specification. Including all connection fittings and any other accessories to deem the installation complete

Bedplate, panel stand and steel fabricated coupling guard for pump and motor as specified. Including anchor bolts or equal and other approved

Water volume to be pumped: - 210 m<sup>3</sup>/hour  
Pump Static Head: - 60m  
Motor size - 11 kW (Each pump)

No

1

- 10 3CR12 drip pan with drain piping as specified

No

2

- 11 Submission for approval to the Engineer equipment selected in accordance with the specification

Item

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R

Section No. 4

Bill No. 5

Air conditioning and ventilation

Prepared by:

**Cepma Engineering Worx (Pty) Ltd**

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male & Female  
Inpatient & Outpatient Mental Health Unit

12	Preparation and submission for approval of construction drawings as specified		Item		
13	Checking and setting of pump and motor alignment on site after installation as well as pump balancing		Item		
14	Installation, Inspection, testing and commissioning of pump set as specified		Item		
15	Allow for hydraulic calculation based on site conditions for Engineers approval prior to acquisition of pumps		Item		
16	100 Litre vertical pressure tank	No	1		
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Section No. 4					
Bill No. 5					
Air conditioning and ventilation					
Prepared by:					
Cepma Engineering Worx (Pty) Ltd					

**FACILITY: General Justice Gizenga Mpanza Regional Hospital**  
**DESCRIPTION: New 28 Bedded Male & Female**  
**Inpatient & Outpatient Mental Health Unit**

**Secondary Chilled water pumps for CH1:**

- 17 Supply and deliver (including air suspended transport where necessary), the following primary chilled water pump sets; Hydro MPC-E-3 CRE 45-2-2 (Grundfos or other approved) centrifugal pump set (2 run and 1 standby) as specified and manufacturers recommendation. The pumps are to be complete with axial suction nozzles and discharge nozzles pointing radially upwards. Shaft to be equipped with replaceable shaft sleeve/ shaft protecting sleeve in the shaft seal area. Impeller trimmed to match the specified duty point

Including Electrical motor for each pump suitable for pump specified. Motor sized with 20% spare capacity and bedplate for pump and motor as specified. Including anchor bolts or equal and other approved. Each pump to be complete with MCC panel with single VSD, amp meter, status lamps, control relays, etc.

Pump to be complete with discharge manifold, pressure switches, pressure gauges with multi function valve on duty pump discharge, lockable isolating valves, inspectable non-return valve on discharge side of duty pump, pressure transducers, priming circuit connection, lockable isolating valves, separate pump inlets, flow meters, thermometers, strainers for each pump, all required flanges, safety release vales, control panel in accordance with the specification. Including all connection fittings and any other accessories to deem the installation complete

Bedplate, panel stand and steel fabricated coupling guard for pump and motor as specified. Including anchor bolts or equal and other approved

Water volume to be pumped: - 210 m<sup>3</sup>/hour  
 Pump Static Head: - 60m  
 Motor size - 11 kW (Each pump)

No 1

- 18 3CR12 drip pan with drain piping as specified

No 2

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R

Section No. 4

Bill No. 5

Air conditioning and ventilation

**Prepared by:**

**Cepma Engineering Worx (Pty) Ltd**



19	Submission for approval to the Engineer equipment selected in accordance with the specification		Item		
20	Preparation and submission for approval of construction drawings as specified		Item		
21	Checking and setting of pump and motor alignment on site after installation as well as pump balancing		Item		
22	Installation, Inspection, testing and commissioning of pump set as specified		Item		
23	Allow for hydraulic calculation based on site conditions for Engineers approval prior to acquisition of pumps		Item		
24	100 Litre vertical pressure tank	No	1		
	<b><u>Supply and deliver the following air handling units (Trox or other approved) complete with, valves, copper/ aluminium chilled water coils, stainless steel drip trays and coil frame, weatherproof casing, fan and motor assembly (direct drive) with VSD, primary and secondary filters on supply side as per individual AHU requirements, rubber fan mounts, mixing boxes, full height access doors, filters with magnahelic pressure differential monitoring and indication across each filter as per AHU specification, flexible connections, dampers, electrical connection to isolator, electrical control boxes including all necessary accessories as specified:</u></b>				
25	AHU1 - Total required cooling load: 105,4 kW; Required heating load: 26 kW; Supply Air volume: 6700 l/sec; ESP: 500Pa; Weather proof enclosure, Primary Filtration Pleated 20% Efficiency, Secondary Filtration Pocket/Bag/Box Filter 95% Efficiency, located in Supply Air side. Fan to be direct drive with VSD, Magnahelic manometer with filter operating parameters across each filter, horizontal orientation, complete with mixing box, motorised supply air, return air and fresh control dampers. Model EC-H-H-L-9 "Trox" or other approved	No	1		
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Section No. 4					
Bill No. 5					
Air conditioning and ventilation					
<b>Prepared by:</b>					
<b>Cepma Engineering Worx (Pty) Ltd</b>					

26	AHU2 - Total required cooling load: 91,4 kW; Required heating load: 53 kW; Supply Air volume: 6050 l/sec; ESP: 500Pa; Weather proof enclosure, Primary Filtration Pleated 20% Efficiency, Secondary Filtration Pocket/Bag/Box Filter 95% Efficiency, located in Supply Air side. Fan to be direct drive with VSD, Magnahelic manometer with filter operating parameters across each filter, horizontal orientation, complete with mixing box, motorised supply air, return air and fresh control dampers. Model EC-H-H-L-7,5 "Trox" or other approved	No	1		
27	AHU3 - Total required cooling load: 27,7 kW; Required heating load: 16 kW; Supply Air volume: 1450 l/sec; ESP: 500Pa; Weather proof enclosure, Primary Filtration Pleated 20% Efficiency, Secondary Filtration Pocket/Bag/Box Filter 95% Efficiency, located in Supply Air side. Fan to be direct drive with VSD, Magnahelic manometer with filter operating parameters across each filter, horizontal orientation, complete with mixing box, motorised supply air, return air and fresh control dampers. Model EC-H-H-L-2 "Trox" or other approved	No	1		
28	AHU4 - Total required cooling load: 54,2 kW; Required heating load: 30 kW; Supply Air volume: 3200 l/sec; ESP: 500Pa; Weather proof enclosure, Primary Filtration Pleated 20% Efficiency, Secondary Filtration Pocket/Bag/Box Filter 95% Efficiency, located in Supply Air side. Fan to be direct drive with VSD, Magnahelic manometer with filter operating parameters across each filter, horizontal orientation, complete with mixing box, motorised supply air, return air and fresh control dampers. Model EC-H-H-L-5 "Trox" or other approved	No	1		
29	AHU5 - Total required cooling load: 28 kW; Required heating load: 14 kW; Supply Air volume: 1519 l/sec; ESP: 500Pa; Weather proof enclosure, Primary Filtration Pleated 20% Efficiency, Secondary Filtration Pocket/Bag/Box Filter 95% Efficiency, located in Supply Air side. Fan to be direct drive with VSD, Magnahelic manometer with filter operating parameters across each filter, horizontal orientation, complete with mixing box, motorised supply air, return air and fresh control dampers. Model EC-H-H-L-2 Trox or other approved	No	1		
Carried to Collection					R
Section No. 4					
Bill No. 5					
Air conditioning and ventilation					
Prepared by:					
Cepma Engineering Worx (Pty) Ltd					



FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

30	AHU6 - Total required cooling load: 14,4 kW; Required heating load: 9 kW; Supply Air volume: 800 l/sec; ESP: 500Pa; Weather proof enclosure, Primary Filtration Pleated 20% Efficiency, Secondary Filtration Pocket/Bag/Box Filter 95% Efficiency, located in Supply Air side. Fan to be direct drive with VSD, Magnahelic manometer with filter operating parameters across each filter, horizontal orientation, complete with mixing box, motorised supply air, return air and fresh control dampers. Model EC-H-H-L-1,5 "Trox" or other approved	No	1
31	AHU7 - Total required cooling load: 36,5 kW; Required heating load: 20 kW; Supply Air volume: 2000 l/sec; ESP: 500Pa; Weather proof enclosure, Primary Filtration Pleated 20% Efficiency, Secondary Filtration Pocket/Bag/Box Filter 95% Efficiency, located in Supply Air side. Fan to be direct drive with VSD, Magnahelic manometer with filter operating parameters across each filter, horizontal orientation, complete with mixing box, motorised supply air, return air and fresh control dampers. Model EC-H-H-L-2,5 "Trox" or other approved	No	1
	<b><u>For the supply, delivery, installation, commissioning of flexible duct collar connection to supply air side of unit:</u></b>		
32	AHU1	No	1
33	AHU2	No	1
34	AHU3	No	1
35	AHU4	No	1
36	AHU5	No	1
37	AHU6	No	1
38	AHU7	No	1

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R

Section No. 4

Bill No. 5

Air conditioning and ventilation

Prepared by:

Cepma Engineering Worx (Pty) Ltd



FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male & Female  
Inpatient & Outpatient Mental Health UnitFor the supply, delivery, installation, commissioning  
of flexible duct collar connection to fresh air side of  
unit:

39	AHU1	No	1
40	AHU2	No	1
41	AHU3	No	1
42	AHU4	No	1
43	AHU5	No	1
44	AHU6	No	1
45	AHU7	No	1

For the supply, delivery, installation, commissioning  
of flexible duct collar connection to return air side  
of unit:

46	AHU1	No	1
47	AHU2	No	1
48	AHU3	No	1
49	AHU4	No	1
50	AHU5	No	1
51	AHU6	No	1
52	AHU7	No	1

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R

Section No. 4

Bill No. 5

Air conditioning and ventilation

Prepared by:

Cepma Engineering Worx (Pty) Ltd

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

Install and commission the following air handling units (Trox or other approved) complete with, valves, copper/ aluminium chilled water coils, stainless steel driptrays and coil frame, weatherproof casing, fan and motor assembly (direct drive) with VSD, primary and secondary filters on supply side as per individual AHU requirements, rubber fan mounts, mixing boxes, full height access doors, filters with magnahelic pressure differential monitoring and indication across each filter as per AHU specification, flexible connections, dampers, electrical connection to isolator, electrical control boxes including all necessary accessories as specified:

53	AHU1	No	1
54	AHU2	No	1
55	AHU3	No	1
56	AHU4	No	1
57	AHU5	No	1
58	AHU6	No	1
59	AHU7	No	1

Carried to Collection

R

Section No. 4

Bill No. 5

Air conditioning and ventilation

Prepared by:

Cepma Engineering Worx (Pty) Ltd

Supply and deliver (including air suspended transport where necessary), the following air handling units (Trox or other approved) complete with, valves, copper/ aluminium separate chilled water coils, stainless steel driptrays and coil frame, weatherproof casing, fan and motor assembly (direct drive) with VSD, primary, secondary and tertiary filters on supply side as per individual AHU requirements, rubber fan mounts, mixing boxes, full height access doors, filters with magnahelic pressure differential monitoring and indication across each filter as per AHU specification, flexible connections, dampers, electrical connection to isolator, electrical control boxes including all necessary accessories as specified:

- 60 AHU8 - Total required cooling load: 12,9 kW; Required heating load: 8,57 kW; Supply Air volume: 0,23 m<sup>3</sup>/s; ESP: 500Pa; Electric heating - 3 kW; Weather proof enclosure, Primary Filtration Pleated 20% Efficiency, Secondary Filtration Pocket/Bag/Box Filter 95% Efficiency, Tertiary Filtration Hepa High Volume 99.97-99.9999% Efficiency located in Supply Air side. Fan to be direct drive with VSD, Magnahelic manometer with filter operating parameters across each filter, horizontal orientation, complete with mixing box, motorised supply air, return air and fresh control dampers. "Model EC-H-H-S-1 Trox" or other approved

No 2

For the supply, delivery, installation, commissioning of flexible duct collar connection to supply air side of unit:

- 61 AHU8

No 2

For the supply, delivery, installation, commissioning of flexible duct collar connection to fresh air side of unit:

- 62 AHU8

No 2

Carried to Collection

R

Section No. 4

Bill No. 5

Air conditioning and ventilation

Prepared by:

Cepma Engineering Worx (Pty) Ltd



FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

<u>Install and commission (including air suspended transport where necessary), the following air handling units (Trox or other approved) complete with, valves, copper/ aluminium separate chilled water coils, stainless steel drip trays and coil frame, weatherproof casing, fan and motor assembly (direct drive) with VSD, primary, secondary and tertiary filters on supply side as per individual AHU requirements, rubber fan mounts, mixing boxes, full height access doors, filters with magnahelic pressure differential monitoring and indication across each filter as per AHU specification, flexible connections, dampers, electrical connection to isolator, electrical control boxes including all necessary accessories as specified:</u>			
63	AHU8	No	2
<u>Supply, deliver, install and commission the following Direct Expansion, Inverter split type air conditioning system ("Daikin Sky air" or other approved), complete with condensing and evaporator units, all with electrical connection to isolator, refrigeration- and drain piping, electrical control wiring, brackets, supports, auxiliary extended drip tray at each indoor unit and all necessary accessories, as per the specification and manufacturer's recommendation. Unit to be priced with advanced scalable control including RTD-10 modbus gateway for duty rotation and backup operation:</u>			
64	Wall mounted type Indoor Evaporator unit (FAA71A) - Cooling capacity - 6,8 kW; Heating capacity - 7,5 kW	No	4
65	Matching Outdoor Condensing unit, complete with wall mounted bracket (AZAS71MV1) - SEER - 5,87; SCOP - 4	No	4
66	Diameter 9,5mm insulated refrigerant piping, installed inside trunking	m	60
67	Diameter 15,9mm insulated refrigerant piping, installed inside trunking	m	60
Carried to Collection			R
Section No. 4			
Bill No. 5			
Air conditioning and ventilation			
Prepared by:			
Cepma Engineering Worx (Pty) Ltd			

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

68	Diameter 32mm uPVC condensate drain piping, installed inside trunking	m	60
69	Hard wired controller (BRC1H52W)	No	4
70	RTD-10 modbus gateway	No	4
71	(100x40)mm uPVC Trunking	m	60
72	"Bluechem" treatment for condensing units	No	4
<b><u>Original "Bluechem" treatment for the following equipment:</u></b>			
73	"Airco ARLSFW 90" or other approved	No	2

**VENTILATION EQUIPMENT**

**For the supply (including delivery), installation (including testing, commissioning and handing over of the following ventilation fan complete with electrical connection to isolator or light circuit as specified, ducting, flexible connections, including hangers, supports, brackets, sound attenuators matching the fan capacities and all necessary accessories:**

74	LINEO INLINE 315 VO @ 352 l/s, 231 l/s, 267 l/s, 431 l/s, 247 l/s, 328 l/s, 373 l/s, 265 l/s and 314 l/s at 200 Pa & 270 l/s, 290 l/s and 314 l/s at 300 Pa inline fan complete with speed controller and timer switch. Supply 220/50/1, 300W. "Donkin" or other approved	No	11
75	Matching sound attenuators	No	22
76	LINEO INLINE 250 VO @ 140 l/s and 350 Pa & 215 l/s at 200 Pa inline fan complete with speed controller and timer switch. Supply 220/50/1, 200W. "Donkin" or other approved	No	2
77	Matching sound attenuators	No	4

Carried to Collection

R

Section No. 4

Bill No. 5

Air conditioning and ventilation

Prepared by:

Cepma Engineering Worx (Pty) Ltd



**FACILITY: General Justice Gizenga Mpanza Regional Hospital**  
**DESCRIPTION: New 28 Bedded Male & Female**  
**Inpatient & Outpatient Mental Health Unit**

78	LINEO INLINE 200 VO @ 69 l/s, 102 l/s and 60 l/d at 200 Pa inline fan complete with speed controller and timer switch. Supply 220/50/1, 200W. "Donkin" or other approved	No	5		
79	Matching sound attenuators	No	10		
80	Box fan VFC 355/300 @ 531 l/s at 200 Pa and 510 l/s and 550 l/s at 300 Pa box fan complete with speed controller and timer switch. Supply 220/50/1, 200W. "Donkin" or other approved	No	3		
81	Matching sound attenuators	No	6		
82	Box fan VFC 450/1100-12 @ 910 l/s at 300 Pa box fan complete with speed controller and timer switch. Supply 220/50/1, 200W. "Donkin" or other approved	No	1		
83	Matching sound attenuators	No	2		
84	Box fan VFC VS 310/300 @ 488 l/s at 200 Pa box fan complete with speed controller and timer switch. Supply 220/50/1, 200W. "Donkin" or other approved	No	3		
85	Matching sound attenuators	No	6		
86	Wall Fan - Vortice Vario 300/12 ARI LLS at 69 l/s 50Pa complete with internal louvre, speed controller and timer switch. "Donkin" or other approved	No	5		
<b><u>Allow for the crainage and rigging of the following equipment:</u></b>					
87	CH1	No	2		
88	Buffer tank	No	1		
89	Primary Chilled Water pump set	No	1		
90	Secondary Chilled Water pump set	No	1		
91	AHU1	No	1		
<b>Carried to Collection</b>				R	
Section No. 4					
Bill No. 5					
Air conditioning and ventilation					
<b>Prepared by:</b>					
<b>Cepma Engineering Worx (Pty) Ltd</b>					



**FACILITY: General Justice Gizenga Mpanza Regional Hospital**  
**DESCRIPTION: New 28 Bedded Male & Female**  
**Inpatient & Outpatient Mental Health Unit**

92	AHU2	No	1		
93	AHU3	No	1		
94	AHU4	No	1		
95	AHU5	No	1		
96	AHU6	No	1		
97	AHU7	No	1		
98	AHU8	No	2		
99	Inline fans	No	19		
100	Box fans	No	6		
101	Sound attenuators	No	50		
102	Wall fans	No	5		
103	DX units (indoor & outdoor)	No	4		

**DUCTWORK AND FITTINGS**

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**R**

Section No. 4

Bill No. 5

Air conditioning and ventilation

**Prepared by:**

**Cepma Engineering Worx (Pty) Ltd**

**Supply, deliver and install low pressure galvanized externally-insulated ductwork as per the specification including fittings, reducers, radius bends, stop end, branches, tees and transformations all hangers, straps, supports, clamps and necessary accessories:**

**ROUND DUCTING**

Complete with fittings including hangers, clamps, brackets, nuts and bolts, etc.(including 15mm thermoflex external insulation)

Sheet metal thickness for round ducting unless otherwise indicated:

- up to 300mm diameter :0.5mm
- 301mm diameter to 800mm diameter : 0.6mm
- 801mm diameter to 1000mm diameter: 0.8mm
- 1001mm diameter to 1200mm diameter: 1.0mm

Jointing shall be beaded

**Straight sections:**

104	Ø200	m	160
105	Ø250	m	90
106	Ø300	m	150
107	Ø350	m	40
108	Ø400	m	40
109	Ø450	m	10

**Lobster bends:**

110	Ø200	No	50
111	Ø250	No	20

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R

Section No. 4

Bill No. 5

Air conditioning and ventilation

Prepared by:

Cepma Engineering Worx (Pty) Ltd

FACILITY: General Justice Gizenga Mpanza Regional Hospital  
 DESCRIPTION: New 28 Bedded Male & Female  
 Inpatient & Outpatient Mental Health Unit

112	Ø300	No	30		
113	Ø350	No	10		
114	Ø400	No	10		
<b><u>Insulated flexible ducting:</u></b>					
115	Ø200	m	110		
116	Ø250	m	50		
117	Ø300	m	140		
118	Ø350	m	20		
119	Ø400	m	15		
<b><u>Stop ends:</u></b>					
120	Ø400	No	5		
<b><u>Spigot with damper:</u></b>					
121	Ø200	m	50		
122	Ø250	m	50		
123	Ø300	m	70		
124	Ø350	m	15		
125	Ø400	m	15		
<b><u>Transformation pieces:</u></b>					
126	Ø300-200	No	5		
127	Ø400-200	No	5		
				R	

Carried to Collection

Section No. 4  
 Bill No. 5  
 Air conditioning and ventilation  
 Prepared by:  
 Cepma Engineering Worx (Pty) Ltd



**Rectangular ducting:**

Rectangular galvanised mild steel sheet metal ductwork installed as per specification complete with fittings including hangers, clamps, brackets, etc. (including insulation) Square meterage of ducting is inclusive of area over fittings

The following sheet metal thickness shall apply to the corresponding categories:

- Category One: 0.6mm
- Category Two: 0.6mm
- Category Three: 0.8mm
- Category Four: 1.0mm; and
- Category Five: 1.2mm

**Category one:**

128	Width or height not exceeding 750mm and the sum of the two adjacent sides not exceeding 1150mm	m2	1,350
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Extra over for low pressure galvanised fittings (reducers, radius bends, transformations, spigots, tees and square-to-rounds):

129	Category one fittings other than stop ends	No	480
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**Stop ends:**

130	Category one stop end fittings	No	30
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**Category two:**

131	Width or height not exceeding 750mm and the sum of the two adjacent sides exceeding 1150mm	m2	50
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Extra over for low pressure galvanised fittings (reducers, radius bends, transformations, spigots, tees and square-to-rounds):

132	Category two fittings other than stop ends	No	15
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R

Section No. 4

Bill No. 5

Air conditioning and ventilation

Prepared by:

Cepma Engineering Worx (Pty) Ltd

-362-

**Supply, deliver and install low pressure galvanized un-insulated ductwork as per the specification including fittings, reducers, radius bends, stop end, branches, tees and transformations all hangers, straps, supports, clamps and necessary accessories:**

**ROUND DUCTING**

Complete with fittings including hangers, clamps, brackets, nuts and bolts, etc.(including 15mm thermoflex external insulation)

Sheet metal Thickness for round ducting unless otherwise indicated will be:

- up to 300mm diameter :0.5mm
- 301mm diameter to 800mm diameter : 0.6mm
- 801mm diameter to 1000mm diameter : 0.8mm; and
- 1001mm diameter to 1200mm diameter : 1.0mm

Jointing shall be beaded

**Straight sections:**

140	Ø180mm	m	15
141	Ø200mm	m	165
142	Ø250mm	m	25
143	Ø300mm	m	25
144	Ø315mm	m	5
145	Ø350mm	m	15
146	Ø400mm	m	125

**Lobster bends:**

147	Ø180	No	5
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**Carried to Collection**

**R**

Section No. 4

Bill No. 5

Air conditioning and ventilation

**Prepared by:**

**Cepma Engineering Worx (Pty) Ltd**



FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male & Female  
Inpatient & Outpatient Mental Health Unit

148	Ø200	No	40		
149	Ø250	No	5		
150	Ø300	No	15		
151	Ø350	No	10		
152	Ø400	No	65		
<b><u>Stop ends:</u></b>					
153	Ø250	No	5		
154	Ø300	No	5		
155	Ø350	No	5		
156	Ø400	No	10		
<b><u>Spigot with damper:</u></b>					
157	Ø180	No	10		
158	Ø200	No	50		
159	Ø250	No	10		
160	Ø300	No	5		
161	Ø350	No	5		
162	Ø400	No	5		
<b><u>Transformation pieces:</u></b>					
163	Ø250-180	No	5		
164	Ø250-200	No	10		
165	Ø300-200	No	5		
<b>Carried to Collection</b>					
Section No. 4				R	
Bill No. 5					
Air conditioning and ventilation					
Prepared by:					
Cepma Engineering Worx (Pty) Ltd					

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male & Female  
Inpatient & Outpatient Mental Health Unit

166	Ø300-250	No	5		
167	Ø350-200	No	5		
168	Ø350-300	No	5		
169	Ø400-250	No	5		
170	Ø400-300	No	5		
171	Ø400-350	No	5		
<b><u>Rectangular ducting:</u></b>					
Rectangular galvanised mild steel sheet metal ductwork installed as per specification complete with fittings including hangers, clamps, brackets, etc. (excluding insulation) Square meterage of ducting is inclusive of area over fittings					
The following sheet metal thickness shall apply to the corresponding categories:					
<ul style="list-style-type: none"> <li>• Category One: 0.6mm</li> <li>• Category Two: 0.6mm</li> <li>• Category Three: 0.8mm</li> <li>• Category Four: 1.0mm; and</li> <li>• Category Five: 1.2mm</li> </ul>					
<b><u>Category one:</u></b>					
172	Width or height not exceeding 750mm and the sum of the two adjacent sides not exceeding 1150mm	m2	165		
<u>Extra over for low pressure galvanised fittings (reducers, radius bends, transformations, spigots, tees and square-to-rounds):</u>					
173	Category one fittings other than stop ends	No	140		
<u>Stop ends:</u>					
174	Category one stop end fittings	No	25		
<b>Carried to Collection</b>				R	
Section No. 4					
Bill No. 5					
Air conditioning and ventilation					
<b>Prepared by:</b>					
<b>Cepma Engineering Worx (Pty) Ltd</b>					

**FACILITY: General Justice Gizenga Mpanza Regional Hospital**  
**DESCRIPTION: New 28 Bedded Male & Female**  
**Inpatient & Outpatient Mental Health Unit**

<b><u>Category two:</u></b>			
175	Width or height not exceeding 750mm and the sum of the two adjacent sides exceeding 1150mm	m2	10
	<u>Extra over for low pressure galvanised fittings (reducers, radius bends, transformations, spigots, tees and square-to-rounds):</u>		
176	Category one fittings other than stop ends	No	5
	<u>Stop ends:</u>		
177	Category one stop end fittings	No	2
<b><u>Category three:</u></b>			
178	Width or height exceeding 750mm and not exceeding 1350mm	m2	10
	<u>Extra over for low pressure galvanised fittings (reducers, radius bends, transformations, spigots, tees and square-to-rounds):</u>		
179	Category three fittings other than stop ends	No	5
	<u>Stop ends:</u>		
180	Category three stop end fittings	No	2
<b><u>Category four:</u></b>			
181	Width or height exceeding 1350mm	m2	10
	<u>Extra over for low pressure galvanised fittings (reducers, radius bends, transformations, spigots, tees and square-to-rounds):</u>		
182	Category four fittings other than stop ends	No	5
	<u>Stop ends:</u>		
183	Category four stop end fittings	No	2
<b>Carried to Collection</b>			
Section No. 4			
Bill No. 5			
Air conditioning and ventilation			
<b>Prepared by:</b>			
<b>Cepma Engineering Worx (Pty) Ltd</b>			

R



**AIR TERMINALS**

**For the Supply (including delivery), installation (including testing, commissioning and handing over of the following grilles, weather louvres, disc valves, diffusers, filters, dampers and associated items including all necessary accessories and fittings:**

**Louvres:**

184	400x400mm Weather Louvre ("Trox AWG" or other approved) complete with wire mesh screen epoxy colour coated finish to Engineers detail	No	2
185	500x200mm Weather Louvre ("Trox AWG" or other approved) complete with wire mesh screen epoxy colour coated finish to Engineers detail	No	3
186	500x250mm Weather Louvre ("Trox AWG" or other approved) complete with wire mesh screen epoxy colour coated finish to Engineers detail	No	1
187	600x350mm Weather Louvre ("Trox AWG" or other approved) complete with wire mesh screen epoxy colour coated finish to Engineers detail	No	4
188	5600x300mm Weather Louvre ("Trox AWG" or other approved) complete with wire mesh screen epoxy colour coated finish to Engineers detail	No	1
189	700x300mm Weather Louvre ("Trox AWG" or other approved) complete with wire mesh screen epoxy colour coated finish to Engineers detail	No	4
190	700x400mm Weather Louvre ("Trox AWG" or other approved) complete with wire mesh screen epoxy colour coated finish to Engineers detail	No	2
191	800x500mm Weather Louvre ("Trox AWG" or other approved) complete with wire mesh screen epoxy colour coated finish to Engineers detail	No	3

**Carried to Collection**

**R**

Section No. 4

Bill No. 5

Air conditioning and ventilation

Prepared by:

**Cepma Engineering Worx (Pty) Ltd**

**FACILITY: General Justice Gizenga Mpanza Regional Hospital**  
**DESCRIPTION: New 28 Bedded Male & Female**  
**Inpatient & Outpatient Mental Health Unit**

192	800x550mm Weather Louvre ("Trox AWG" or other approved) complete with wire mesh screen epoxy colour coated finish to Engineers detail	No	1		
193	800x400mm Weather Louvre ("Trox AWG" or other approved) complete with wire mesh screen epoxy colour coated finish to Engineers detail	No	1		
194	900x850mm Weather Louvre ("Trox AWG" or other approved) complete with wire mesh screen epoxy colour coated finish to Engineers detail	No	2		
<u>Grilles:</u>					
195	600x400mm High Security Supply air grille ("Trox TGC" or other approved) complete with OBD epoxy colour coated finish to Engineers detail	No	130		
196	150x150mm High Security Supply air grille (Trox TGC or other approved) complete with OBD epoxy colour coated finish to Engineers detail	No	5		
197	600x400mm High Security Return air grille ("Trox TGC" or other approved) complete with OBD epoxy colour coated finish to Engineers detail	No	80		
198	150x150mm High Security Extract air grille ("Trox TGC" or other approved) complete with OBD epoxy colour coated finish to Engineers detail	No	80		
<u>Dampers:</u>					
199	600x400 Rectangular Volume Control Damper, (manual) ("Trox type JS-B" or other approved)	No	210		
200	150x150 Rectangular Volume Control Damper, (manual) ("Trox type JS-B" or other approved)	No	85		
<u>Fire dampers:</u>					
201	600x400 Rectangular Fire Damper, (manual) ("Trox type FDF-S" or other approved)	No	210		
<b>Carried to Collection</b>				R	
Section No. 4					
Bill No. 5					
Air conditioning and ventilation					
<b>Prepared by:</b>					
<b>Cepma Engineering Worx (Pty) Ltd</b>					

**FACILITY: General Justice Gizenga Mpanza Regional Hospital**  
**DESCRIPTION: New 28 Bedded Male & Female**  
**Inpatient & Outpatient Mental Health Unit**

202	150x150 Rectangular Fire Damper, (manual) ("Trox type FDF-S" or other approved)	No	85		
	<u>Washable pleated filters:</u>				
203	PF1 - 295x295x50mm Washable primary pleated filters ("Trox" type WP-PS/ 295x295x50 or other approved) complete with filter box	No	1		
204	PF2 - 295x595x50mm Washable primary pleated filters ("Trox" type WP-PS/ 295x595x50 or other approved) complete with filter box	No	3		
205	PF3 - 395x495x50mm Washable primary pleated filters ("Trox" type WP-PS/ 395x495x50 or other approved) complete with filter box	No	1		
206	PF3 - 595x595x50mm Washable primary pleated filters ("Trox" type WP-PS/ 595x595x50 or other approved) complete with filter box	No	1		
	<u>ø 25mm:</u>				
207	Pipe	m	40		
208	Bends	No	30		
209	Tees	No	10		
210	Omega Frese valves	No	3		
	<u>Cladded insulation for pipe fittings:</u>				
211	Cladded insulation for piping	m	40		
212	Bend	No	30		
213	T-Piece	No	10		
214	Omega Frese valves	No	3		
<b>Carried to Collection</b>				R	
Section No. 4					
Bill No. 5					
Air conditioning and ventilation					
Prepared by:					
Cepma Engineering Worx (Pty) Ltd					



**FACILITY: General Justice Gizenga Mpanza Regional Hospital**  
**DESCRIPTION: New 28 Bedded Male & Female**  
**Inpatient & Outpatient Mental Health Unit**

	<u>ø 32mm:</u>				
215	Pipe	m	126		
216	Bends	No	30		
217	Tees	No	10		
218	Omega Frese valves	No	3		
	<u>Cladded insulation for pipe fittings:</u>				
219	Cladded Insulation for piping	m	126		
220	Bend	No	30		
221	T-Piece	No	10		
222	Omega Frese valves	No	3		
	<u>ø 40mm:</u>				
223	Pipe	m	16		
224	Bends	No	4		
225	Tees	No	4		
	<u>Reducer:</u>				
226	ø 40mm-25mm	No	3		
227	ø 40mm-32mm	No	3		
228	Omega Frese valves	No	2		
	<u>Cladded insulation for pipe fittings:</u>				
229	Cladded insulation for piping	m	16		
230	Bend	No	4		
<b>Carried to Collection</b>				R	
Section No. 4					
Bill No. 5					
Air conditioning and ventilation					
<b>Prepared by:</b>					
<b>Cepma Engineering Worx (Pty) Ltd</b>					

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

231	T-Piece	No	4		
	<u>Reducer:</u>				
232	ø 40mm-25mm	No	3		
233	ø 40mm-32mm	No	3		
234	Omega Frese valves	No	2		
	<u>ø 50mm:</u>				
235	Pipe	m	96		
236	Bends	No	14		
237	Tees	No	4		
	<u>Reducer:</u>				
238	ø 50mm-32mm	No	2		
239	ø 50mm-40mm	No	2		
	<u>Cladded insulation for pipe fittings:</u>				
240	Cladded insulation for piping	m	96		
241	Bend	No	14		
242	T-Piece	No	4		
	<u>Reducer:</u>				
243	ø 50mm-32mm	No	2		
244	ø 50mm-40mm	No	2		
	<u>ø 65mm:</u>				
245	Pipe	m	140		
Carried to Collection				R	
Section No. 4					
Bill No. 5					
Air conditioning and ventilation					
Prepared by:					
Cepma Engineering Worx (Pty) Ltd					

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

246	Bends	No	30		
247	Tees	No	12		
	<u>Reducer:</u>				
248	ø 65mm-25mm	No	4		
249	ø 65mm-32mm	No	4		
250	ø 65mm-50mm	No	6		
	<u>Cladded insulation for pipe fittings:</u>				
251	Cladded insulation for piping	m	140		
252	Bend	No	30		
253	T-Piece	No	12		
	<u>Reducer:</u>				
254	ø 65mm-25mm	No	4		
255	ø 65mm-32mm	No	4		
256	ø 65mm-50mm	No	6		
	<u>ø 80mm:</u>				
257	Pipe	m	30		
258	Bends	No	2		
259	Tees	No	2		
	<u>Reducer:</u>				
260	ø 80mm-25mm	No	3		
261	ø 80mm-65mm	No	3		
Carried to Collection				R	
Section No. 4					
Bill No. 5					
Air conditioning and ventilation					
Prepared by:					
Cepma Engineering Worx (Pty) Ltd					



	<u>Cladded insulation for pipe fittings:</u>				
262	Cladded insulation for piping	m	30		
263	Bend	No	2		
264	T-Piece	No	2		
	<u>Reducer:</u>				
265	ø 80mm-25mm	No	3		
266	ø 80mm-65mm	No	3		
	<u>ø 100mm:</u>				
267	Pipe	m	20		
268	Bends	No	2		
269	Tees	No	2		
	<u>Reducer:</u>				
270	ø 100mm-65mm	No	2		
271	ø 100mm-80mm	No	2		
	<u>Cladded insulation for pipe fittings:</u>				
272	Cladded insulation for piping	m	20		
273	Bend	No	2		
274	T-Piece	No	2		
	<u>Reducer:</u>				
275	ø 100mm-65mm	No	2		
276	ø 100mm-80mm	No	2		
Carried to Collection				R	
Section No. 4					
Bill No. 5					
Air conditioning and ventilation					
Prepared by:					
Cepma Engineering Worx (Pty) Ltd					

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

	<u>ø 125mm:</u>				
277	Pipe	m	100		
278	Bends	No	26		
279	Tees	No	10		
	<u>Reducer:</u>				
280	ø 125mm-65mm	No	8		
281	ø 125mm-100mm	No	4		
	<u>Cladded insulation for pipe fittings:</u>				
282	Cladded insulation for piping	m	100		
283	Bend	No	26		
284	T-Piece	No	10		
	<u>Reducer:</u>				
285	ø 125mm-65mm	No	8		
286	ø 125mm-100mm	No	4		
287	Supply and install galvanised pipe supports, complete with U-bolts, rubber vibration mounts, suitable for 2 pipes complete with insulation and cladding). Allow for wooden blocks and vapour barrier. See Standard drawing STD18 and STD 50 (LIC)			Item	
288	Supply and install galvanised pipe supports, complete with U-bolts, rubber vibration mounts, suitable for 4 pipes complete with insulation and cladding). Allow for wooden blocks and vapour barrier. See Standard drawing STD18 and STD 50 (LIC)			Item	
Carried to Collection				R	
Section No. 4					
Bill No. 5					
Air conditioning and ventilation					
Prepared by:					
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FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

Supply, install and connect the following valves in accordance with the specification including flanges for valves and fittings larger than diameter 50mm including insulation and all necessary fittings and accessories:

Ball valve:

289	25mm diameter	No	3
290	35mm diameter	No	3
291	40mm diameter	No	2
292	50mm diameter	No	1
293	65mm diameter	No	1
294	80mm diameter	No	1
295	100mm diameter	No	1
296	125mm diameter	No	1

Automatic bleed valves, complete with overflow reinforced neoprene pipe:

297	15mm Diameter	No	9
298	Weld sockets for bleed valves	No	9

STAD TA Balancing valves:

299	25mm diameter	No	1
300	35mm diameter	No	1
301	40mm diameter	No	1
302	50mm diameter	No	1
303	65mm diameter	No	1

Carried to Collection

R

Section No. 4

Bill No. 5

Air conditioning and ventilation

Prepared by:

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FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

304	80mm diameter	No	1		
305	100mm diameter	No	1		
306	125mm diameter	No	1		
307	Binder fittings	No	10		
<b><u>Supply, install and connect the following valve and piping configuration at the air handling or fan coil units in accordance with the specification, including insulation and necessary fittings and accessories:</u></b>					
<b><u>25mm diameter:</u></b>					
308	Ball valve	No	3		
309	Balancing valve	No	3		
310	Motorised 3 way mixing valve	No	3		
311	15mm Strainer	No	3		
312	15mm diameter pipe 200mm long (insulated)	m	15		
313	15x15x15mm T	No	3		
314	15mm diameter brazed flexible piping	m	15		
315	Binder fitting	No	9		
<b><u>32mm diameter:</u></b>					
316	Ball valve	No	3		
317	Balancing valve	No	3		
318	Motorised 3 way mixing valve	No	3		
319	25mm Strainer	No	3		
320	25mm diameter pipe 200mm long (insulated)	m	15		
<b>Carried to Collection</b>				R	
Section No. 4					
Bill No. 5					
Air conditioning and ventilation					
<b>Prepared by:</b>					
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321	25x25x25mm T	No	3		
322	50mm diameter brazed flexible piping	m	15		
323	Binder fitting	No	9		
	<u>40mm diameter:</u>				
324	Ball valve	No	2		
325	Balancing valve	No	2		
326	Motorised 3 way mixing valve	No	2		
327	25mm Strainer	No	2		
328	25mm diameter pipe 200mm long (insulated)	m	10		
329	25x25x25mm T	No	2		
330	50mm diameter brazed flexible piping	m	10		
331	Binder fitting	No	6		
	<u>50mm diameter:</u>				
332	Ball valve	No	1		
333	Balancing valve	No	1		
334	Motorised 3 way mixing valve	No	1		
335	25mm Strainer	No	1		
336	25mm diameter pipe 200mm long (insulated)	m	5		
337	25x25x25mm T	No	1		
338	50mm diameter brazed flexible piping	m	5		
339	Binder fitting	No	3		
Carried to Collection				R	
Section No. 4					
Bill No. 5					
Air conditioning and ventilation					
Prepared by:					
Cepma Engineering Worx (Pty) Ltd					

**ELECTRICS AND CONTROLS**

**Weather proof Motor control centre complete with instrumentation, locks, switches, switchgear and termination of incoming cable, to house the following switchgear:**

340	RMS 705B-1 Programmable controller, "Siemens" or other approved	No	1
341	RMZ791 Operator Display, "Siemens" or other approved	No	1
342	QAM2120.040 Duct temperature sensor "Siemens" or other approved	No	2
343	QFA 2060 Space temperature/Humidity sensor "Siemens" or other approved	No	2
344	QBM2030-5 Static pressure sensor "Siemens" or other approved	No	1
345	Air Pressure switch	No	2
346	VXF32.50-40 50mm 3 way valve (CHW) "Siemens" or other approved	No	1
347	SAX61.03 Valve actuator "Siemens" or other approved	No	1
348	Program	No	1
349	RMS 705B-1 Programmable controller "Siemens" or other approved	No	3
350	RMZ791 Operator Display "Siemens" or other approved	No	3
351	QAM2120.040 Duct temperature sensor "Siemens" or other approved	No	6
352	QFA 2060 Space temperature/Humidity sensor "Siemens" or other	No	6
353	QBM2030-5 Static pressure sensor "Siemens" or other approved	No	3

Carried to Collection

R

Section No. 4

Bill No. 5

Air conditioning and ventilation

Prepared by:

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FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

354	Air Pressure switch	No	6		
355	VXP45.25-6.3 25mm 3 way valve (CHW) "Siemens" or other approved	No	3		
356	SSC61.5 Valve actuator "Siemens" or other approved	No	3		
357	Program	No	3		
358	RMS 705B-1 Programmable controller "Siemens" or other approved	No	3		
359	RMZ791 Operator Display "Siemens" or other approved	No	3		
360	QAM2120.040 Duct temperature sensor "Siemens" or other approved	No	6		
361	QFA 2060 Space temperature/Humidity sensor "Siemens" or other approved	No	6		
362	QBM2030-5 Static pressure sensor "Siemens" or other approved	No	3		
363	Air Pressure switch	No	6		
364	VXP45.32-16 32mm 3 way valve (CHW) "Siemens" or other approved	No	3		
365	SSC61.5 Valve actuator "Siemens" or other approved	No	3		
366	Program	No	3		
367	RMS 705B-1 Programmable controller "Siemens" or other approved	No	2		
368	RMZ791 Operator Display "Siemens" or other approved	No	2		
369	QAM2120.040 Duct temperature sensor "Siemens" or other approved	No	4		
370	QFA 2060 Space temperature/Humidity sensor "Siemens" or other approved	No	4		
Carried to Collection				R	
Section No. 4					
Bill No. 5					
Air conditioning and ventilation					
Prepared by:					
Cepma Engineering Worx (Pty) Ltd					

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

371	QBM2030-5 Static pressure sensor "Siemens" or other approved	No	2		
372	Air Pressure switch	No	4		
373	VXP45.32-16 40mm 3 way valve (CHW) "Siemens" or other approved	No	2		
374	SSC61.5 Valve actuator "Siemens" or other approved	No	2		
375	Program	No	2		
<b><u>Chiller plant controller:</u></b>					
376	RMS 705B-1 Programmable controller "Siemens" or other approved	No	2		
377	QAE2120.010 Immersion temperature sensor "Siemens" or other approved	No	8		
378	Program	No	2		
<b><u>Central monitoring panel:</u></b>					
379	RMZ792 Bus Display "Siemens" or other approved	No	1		
380	Panel	No	1		
381	Program	No	1		
<b><u>Web based front end (1 off):</u></b>					
382	OZW772.250 Web server for 250 Synco devices "Siemens" or other approved	No	1		
383	Panel	No	1		
384	Program	No	1		
<b><u>Communications cable:</u></b>					
385	1 Pair OAM in PVC conduit	m	150		
				R	
<p style="text-align: right;"><b>Carried to Collection</b></p> <p>Section No. 4  Bill No. 5  Air conditioning and ventilation  <b>Prepared by:</b>  <b>Cepma Engineering Worx (Pty) Ltd</b></p>					

**SUNDRIES:**

386	Supply, deliver and install (250x100)mm galvanized trunking, with removable covers, including brackets, supports and all necessary accessories, to install refrigeration piping in	m	50
387	Supply, deliver and install (200x100)mm galvanized trunking, with removable covers, including brackets, supports and all necessary accessories, to install refrigeration piping in	m	50
388	Supply, deliver and install 100mm wide wire mesh cable basket (Cabstrut or other approved), including brackets, supports and all necessary accessories, to install refrigeration piping on	m	250
389	Supply, deliver and install 200mm wide wire mesh cable basket (Cabstrut or other approved), including brackets, supports and all necessary accessories, to install refrigeration piping on	m	250
390	R410A Refrigerant charge	kg	25
391	Supply and install (41x41)mm Unistrut channel (Cabstrut or other approved) as brackets and supports for the air conditioning units, ducting and cable trays to the building roof and wall structure, complete with necessary fittings and accessories as per manufacturer's recommendation	m	250

**GENERAL ITEMS:**

392	Allow for painting of ducting and insulation of the Air conditioning and Ventilation installation as specified to SANS 10173. The surfaces shall be cleaned, primed, under coated and finished in high quality gloss paint	Item
393	Allow for supply and installation of acrylic cloth and painting of foster seal over exposed refrigeration piping (200x80x400)mm	Item

Carried to Collection

R

Section No. 4

Bill No. 5

Air conditioning and ventilation

Prepared by:

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FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

Any items not specifically listed above but required to complete the installation as per the specification and drawings (list the items):

394 Drawings  
395 Engineering  
396 Transport

Item

Item

Item

Carried to Collection

R

Section No. 4

Bill No. 5

Air conditioning and ventilation

Prepared by:

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FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

Section No. 4

Bill No. 5

Air conditioning and ventilation

**COLLECTION**

Total Brought Forward from Page No.

Page  
No

Amount

340

341

342

343

344

345

346

347

348

349

350

351

352

353

354

355

356

357

Carried Forward

R

Section No. 4

Bill No. 5

Air conditioning and ventilation

Prepared by:

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FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

Section No. 4

Bill No. 5

Air conditioning and ventilation

**COLLECTION**

	Page No	Amount
<b>Brought Forward</b>		R
Total Brought Forward from Page No.	358	
	359	
	360	
	361	
	362	
	363	
	364	
	365	
	366	
	367	
	368	
	369	
	370	
	371	
	372	
	373	
	374	
<b>Carried Forward</b>		R
Section No. 4		
Bill No. 5		
Air conditioning and ventilation		
Prepared by:		
Cepma Engineering Worx (Pty) Ltd		



**COLLECTION**

Page  
No

Amount

R

Total Brought Forward from Page No.

375

376

377

378

379

380

381

382

R

**Cepma Engineering Worx (Pty) Ltd**

Item  
No

Quantity

Rate

Amount

**BILL NO. 6****FIRE PROTECTION**Descriptions and preambles:

1. For preambles see "Standard Preambles to all Trades Rev 3 - DoH 2009"
2. Contractor is referred to Trades to follow hereafter for preambles and full descriptions of materials and items not fully described in this Trade and which shall apply equally to work in this Trade, unless otherwise described

Trade Names and Proprietary Products:

1. All descriptions or clauses where trade names or proprietary products are specified, are deemed to include the phrase "or other approved"

**SUPPLEMENTARY PREAMBLES**Reference to drawings and project specification documentation:

1. Contractors to make reference to drawings and project specification documentation that forms part of these Bills of Quantities for all installations and procedures required for the installation or execution of these works

Carried to Collection

R

Section No. 4

Bill No. 6

Fire protection

Prepared by:

Cepma Engineering Worx (Pty) Ltd

FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male & Female  
Inpatient & Outpatient Mental Health UnitMaterial samples:

1. Before commencement of any work, the contractor will be required to timeously supply a sample of the material to be used to the Principal Agent for approval at no cost
2. Material installed without prior approval from the Principal Agent will be removed at the contractor's cost

Carried to Collection

R

Section No. 4

Bill No. 6

Fire protection

Prepared by:

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FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

General:

1. All details and dimensions shown on the drawings are subject to confirmation on site and during construction. All dimensions and levels are to be confirmed on site before commencement of the works
2. All levels on structural drawings refer to the top of concrete, steel, etc. unless otherwise indicated
3. The Contractor is to comply at all times with all the relevant municipal regulations, conditions of approval and bylaws in the area of the site and is to ensure that a set of approved building plans is on site at all times
4. All specification documentation, drawings, etc. shall be available on site at all times
5. The Contractor shall at all times be fully responsible for quality control on site ensuring strict compliance with all drawings, details and specifications issued by the relevant design consultant. The Contractor shall submit a quality control plan for each portion of work prior to the commencement for acceptance. The works shall only commence on acceptance of the quality plan by the relevant design consultant
6. All products specified for use are to be used in strict accordance with the manufacturer's specifications and where applicable by an approved manufacturer's applicator or installer
7. Products different to those specified in the specification documentation shall only be used with prior approval of the relevant design consultant

Carried to Collection

R

Section No. 4

Bill No. 6

Fire protection

Prepared by:

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FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

Shop drawings:

1. Shop drawings are to be provided for all elements that are to be fabricated by the contractor's fabricator or supplier
2. All shop drawings are to be submitted to the relevant design consultant or Principal Agent for approval prior to the commencement of fabrication
3. Any fabricated elements installed without prior approval by the relevant design consultant or Principal Agent will be removed at the contractor's cost

Samples:

1. A sample of any approved product must be delivered to site for sign off by the relevant design consultant or Principal Agent prior to commencement of the installation

**STATUTORY SIGNAGE**

**Supply, delivery & installation to be in accordance with SANS 1186 & SANS 10400. The following signage reference codes are applicable in reference to the fire signage drawings:**

190mm x 190mm pictogram:

1	E2	No	10
2	E3	No	50
3	E6	No	20
4	F15	No	14
5	F4	No	31

Carried to Collection

R

Section No. 4

Bill No. 6

Fire protection

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FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

6	F5	No	10
7	F6	No	10
8	F13	No	6
9	F49	No	2
10	F45	No	10

**EMERGENCY EXIT SIGNAGE LUMINAIRES**

Synthetic housing shall be manufactured to EN 60598-1 and EN 60695-2-10 (850°C). Array of 20/40 high-brightness LEDs, shall provide excellent uniformity. Multiple circuits shall result in no single point of failure. The NiMH battery shall have no memory effect, and shall contain no Cadmium and shall have double the capacity of NiCad batteries. The LISU range shall be built to EN 60598-2-22 standards and shall comply with EN 1838 standards EN 60598-1 and EN 60695-2-10:

LISU single-sided wall mounted (integrated clip-on wall mount plate with plug-in terminal block.):

11	RTD1328 (Right Exit EU)	No	1
12	RTD1329 (Left Exit EU)	No	1
13	RTD1330 (Exit Down EU)	No	1
14	RTD1331: Exit	No	1
15	RT1308 (Text: Exit)	No	10

**FIRE EQUIPMENT**

Hydrant installation:

Carried to Collection

R

Section No. 4

Bill No. 6

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	<u>Design, supply, delivery, installation, connection, testing &amp; commissioning of a completely functioning fire hydrant installation as itemized below (note that hydrant installation includes the piping associated with it):</u>				
16	Ø80mm fire hydrant with instantaneous coupling (Tamperproof, Right Angle)	No	13		
17	Ø100mm fire hydrant with instantaneous coupling	No	1		
	<b><u>Portable fire extinguishers:</u></b>				
18	5kg CO2 portable fire extinguishers fully installed on meranti backing boards	No	1		
19	4.5kg DCP portable fire extinguishers fully installed on meranti backing boards	No	62		
	<b><u>Hose-reels:</u></b>				
	<u>Design, supply, delivery, installation, connection, testing &amp; commissioning of a completely functioning fire hydrant installation as itemized below (note that hydrant installation includes the piping associated with it):</u>				
20	30m Ø25mm hose reels	No	31		
	<b><u>Booster connection:</u></b>				
21	Booster connection complete with non-return valve	No	1		
	<b><u>Supply and Install of pipework below ground including fixtures, fittings, bends, tees, reducers, couplings, adapters, pipe supports etc. complete. pipework to be wrapped in denso tape (price to exclude trenching and backfilling which will be as per civil Engineers measure and pipework to be re-measurable upon finalisation of installation):</u></b>				
22	150mm diameter Black mild steel piping	m	1		
23	100mm diameter Black mild steel piping	m	20		
24	40mm diameter Black mild steel piping	m	1		
	<b>Carried to Collection</b>			R	
	Section No. 4				
	Bill No. 6				
	Fire protection				
	Prepared by:				
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25	32mm diameter Black mild steel piping	m	1
26	25mm diameter Black mild steel piping	m	1
<b><u>Supply and Install of pipework above ground including fixtures, fittings, bends, tees, reducers, couplings, adapters, pipe supports etc. complete (Pipework to be re-measurable upon finalisation of installation):</u></b>			
27	150mm diameter Black mild steel piping	m	1
28	100mm diameter Black mild steel piping	m	450
29	40mm diameter Black mild steel piping	m	200
30	32mm diameter Black mild steel piping	m	200
31	25mm diameter Black mild steel piping	m	250

**SMOKE VENTILATION SYSTEM**

Smoke ventilation system for space in accordance with SANS 10400-T:2024 and BS EN 12101-Part 5 - Smoke and Heat Control systems

**Terminal schedule:**

32	L1 - Smoke Exhaust Weather Louvre - 2000x1000mm	No	6
33	L2 - Weather Louvre - 500X500mm	No	8
34	Smoke Grille - 600x600mm	No	37

**Fire damper schedule:**

35	FD 1 - Fusible Link Fire Damper - 600x600mm	No	37
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**Fan schedule:**

36	SF 1 - Axial Smoke Fan(9.04m <sup>3</sup> /s,8 ACH) - Ø500mm	No	6
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Carried to Collection

R

Section No. 4

Bill No. 6

Fire protection

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FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

37	JF 1 - Jet Fan (System Air or equal approved 50-4B,H = 285) - 1250x870mm	No	6		
	<b><u>Sound attenuator schedule:</u></b>				
38	1.5D Long Circular SA - Ø500mm	No	12		
	<b><u>Controls schedule:</u></b>				
39	CO - Carbon monoxide sensor	No	14		
40	PH120 fire rated cabling	m	3,000		
41	Chain actuator mechanism for forced window control SE Controls "SECO" N 2425 or equal approved (Window excluded)	No	32		
	<b><u>Electrical installation:</u></b>				
42	Main control panel	No	1		
43	Allowance for providing a power supply and interlinking to DB		Item		
44	Allowance for smoke ventilation system to be linked to backup generator system		Item		
45	Allowance for testing and commissioning of smoke ventilation system		Item		
46	I/O interfaces for HVAC shutdown	No	10		
Carried to Collection				R	
Section No. 4					
Bill No. 6					
Fire protection					
Prepared by:					
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FACILITY: General Justice Gizenga Mpanza Regional Hospital

DESCRIPTION: New 28 Bedded Male &amp; Female

Inpatient &amp; Outpatient Mental Health Unit

Section No. 4

Bill No. 6

Fire protection

**COLLECTION**

Total Brought Forward from Page No.

Page  
No

Amount

386

387

388

389

390

391

392

393

Carried Forward to Summary of Section No. 4

R

Section No. 4

Bill No. 6

Fire protection

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**SECTION SUMMARY - Section No. 4: Mechanical works**

Bill No		Page No	Amount
1	Preliminaries and general	313	
2	Internal sewer reticulation	320	
3	Hot and cold water	334	
4	Medical gas	339	
5	Air conditioning and ventilation	385	
6	Fire protection	394	
Carried to Final Summary			R
Section No. 4			
Prepared by:			
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**KWAZULU-NATAL PROVINCE**

**PUBLIC WORKS & INFRASTRUCTURE**  
REPUBLIC OF SOUTH AFRICA

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**NEW 28 BEDDED MALE & FEMALE INPATIENT & OUTPATIENT MENTAL HEALTH UNIT**

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**PART C2.6 Bills of Quantities: FINAL SUMMARY**



-396-



**KWAZULU-NATAL PROVINCE**

**PUBLIC WORKS & INFRASTRUCTURE**  
REPUBLIC OF SOUTH AFRICA

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## **NEW 28 BEDDED MALE & FEMALE INPATIENT & OUTPATIENT MENTAL HEALTH UNIT**

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### **PART C3. SCOPE OF WORKS**

C3.1 SCOPE OF WORKS GCC FOR CONSTRUCTION WORKS (Edition 2 of 2010)			
Scope of Works complied in accordance with SANS 10403 where reference is made to this part of SANS 1921-1:2004			
Project title:	NEW 28 BEDDED MALE & FEMALE INPATIENT & OUTPATIENT MENTAL HEALTH UNIT		
Tender no:	ZNTD 02753W	Project Code:	048152
1	<b>SECTION 1</b> <b>EXTENT OF THE WORKS</b> <b>1.1 EMPLOYERS OBJECTIVES</b> Construction of a new 24 bedded mental health unit at the existing hospital precinct. <b>1.2 OVERVIEW OF THE WORKS</b> The proposed building will be founded on column and retaining wall structures supporting a reinforced concrete ground floor slab and reinforced concrete roof slab that is to also serve as a ceiling for the unit. The structure comprises of masonry walls on the outer shell and partitions to the inside of the ground floor level. The roof is to be covered with powder coated aluminium roof sheeting bearing on a structural steel portal frame that is to house all services for electricity, air-conditioning, etc. to the building as these need to be concealed within the building structure. <b>1.3 EXTENT OF THE WORKS</b> The proposed building comprises of a two storey structure with a total area of 6506m2 consisting of: - 3230m2 of Ground floor space with suspended courtyards; - 3083m2 of roof services level; - 23m2 of Calorifier room - 8m2 of Electrical room; - 78m2 of AC plant room; - 2901m2 of basement parking; and - 84m2 of underground access tunnel required as a maintenance service tunnel between the new building and the existing facility. <b>1.4 LOCATION OF THE WORKS</b> The site is situated within the premises of the General Justice Gizenga Mpanza Regional Hospital in the town of KwaDukuza. GPS Co-ordinates for the site is 29,3554 South and 31,28448 East. <b>1.5 TEMPORARY WORKS</b> All temporary work to comply with the Occupational Health and safety Act (Act 85 of 1993)		
2	<b>ENGINEERING</b> <b>2.1 EMPLOYER'S DESIGN</b> As per Engineer's specifications and details. <b>2.2 DESIGN BRIEF</b> Not applicable <b>2.3 DRAWINGS</b> See list of drawings/Annexure's attached to this document.		



2.4	<p><b>DESIGN PROCEDURES</b></p> <p>Not applicable</p>
3	<p><b><u>PROCUREMENT</u></b></p>
3.1	<p><b>PREFERENTIAL PROCUREMENT PROCEDURES</b></p> <p>This tender will be subject to the implementation of the Preferential Procurement Regulations, 2022, pertaining to the Preferential Procurement Policy Framework Act, Act Number 5 of 2000 and the relevant Supply Chain Management Legislation and the KwaZulu-Natal Supply Chain Management Policy Framework published by the KwaZulu-Natal Provincial Treasury. Tenderders are referred to <a href="http://www.kzntreasury.gov.za">www.kzntreasury.gov.za</a> for access to the relevant documents.</p> <p>Tenderders are advised to familiarize themselves with the contents of the KwaZulu-Natal Supply Chain Management Policy Framework regarding Preference Point Systems, evaluation of tenders appeals and other matters.</p>
3.2	<p><b>RESOURCE STANDARD PERTAINING TO TARGETED PROCUREMENT</b></p> <p>NOTE : This project will be adjudicated as exceeding R 50,000 000,00</p>
3.3	<p><b>SCOPE OF MANDATORY SUBCONTRACT WORK</b></p> <p>Not applicable</p>
3.4	<p><b>PREFERRED SUBCONTRACTORS/SUPPLIERS</b></p> <p>Not applicable</p>
3.5	<p><b>SUBCONTRACTING PROCEDURES</b></p> <p>Not applicable</p>
4	<p><b><u>CONSTRUCTION</u></b></p>
4.1	<p><b>APPLICABLE SANS 2001 STANDARDS FOR CONSTRUCTION WORKS</b></p> <p>The Contractor is referred to the "Model Preambles to Trades - 2008", any "Supplementary Preambles", the Electrical Specifications and Mechanical Specification for full descriptions of materials and methods referred to in these Bills of Quantities/Lump Sum documents, insofar as they apply. The Contractor is advised to study the "Standard Preambles to all Trades", any "Supplementary Preambles", the Electrical Specifications and Mechanical Specification, before pricing Bills of Quantities/Lump Sum documents.</p> <p>Where the description in the Bills of Quantities/Lump Sum documents differ from those in the Standard Electrical Specifications, the descriptions in the Bills of Quantities/Lump Sum documents are to apply. No claim whatsoever will be allowed in respect of errors in pricing due to brevity of description of items in the Bills of Quantities/Lump Sum documents which are fully described when read in conjunction with the relevant Preambles and/or Specifications. Suppliers of materials and the like, whose quality systems apply with one or more of the SABS/SANS ISO 9000 Series should be used whenever possible in the absence of a particular SABS/SANS Specification Standard Mark.</p> <p>Wherever the words "shall be deemed to be included in the description", "shall be stated" or other words having the same effect, appear in the Standard System, it shall be deemed that all descriptions in these Bills of Quantities/Lump Sum documents incorporated such inclusions and statements whether specifically stated or not.</p> <p>The Contractor is hereby informed that where SABS/SANS Specifications are referred to in these Bills of Quantities/Lump Sums documents and Specifications thereto, then ONLY the Specification of Work Clauses will apply. The method of measurement and payment clauses will NOT apply to this Contract.</p> <p>The Contractor is hereby informed that risk of collapse and keeping excavations free from water (excluding subterranean water) generally are deemed to be included in the descriptions unless accommodated in the system of measurement. Please refer to the Geotechnical Investigation report when included at the end of these tender documents.</p> <p>Whenever reference is made to "Sub-Contractor", "Nominated Sub-Contractor" or the like in the specifications included or referred to in these Bills of Quantities/Lump Sums documents, it shall be deemed to mean "Contractor" as defined.</p>

4.2	<p><b>APPLICABLE NATIONAL AND INTERNATIONAL STANDARDS</b></p> <p>See above 4.1</p>												
4.3	<p><b>PARTICULAR / GENERIC SPECIFICATIONS</b></p> <p>The Contractor is referred to the following documents whether attached to this document or not:</p> <table border="0"> <thead> <tr> <th><u>SPECIFICATION</u></th><th><u>PAGES</u></th></tr> </thead> <tbody> <tr> <td>Specification for HIV/AIDS Awareness (CIDB)</td><td>HIV1 TO HIV3</td></tr> <tr> <td>Specific Construction, Safety, Health and Environmental Plan</td><td></td></tr> <tr> <td>Standard Preambles for all Trades (Rev 3) - DOH 2009</td><td>1 to 95</td></tr> <tr> <td>General Electrical Specification</td><td>E/1 to E/20</td></tr> <tr> <td>Lightning Protection Installation</td><td>LP/1 to LP/6</td></tr> </tbody> </table>	<u>SPECIFICATION</u>	<u>PAGES</u>	Specification for HIV/AIDS Awareness (CIDB)	HIV1 TO HIV3	Specific Construction, Safety, Health and Environmental Plan		Standard Preambles for all Trades (Rev 3) - DOH 2009	1 to 95	General Electrical Specification	E/1 to E/20	Lightning Protection Installation	LP/1 to LP/6
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Lightning Protection Installation	LP/1 to LP/6												
4.4	<p><b>CERTIFICATION BY RECOGNIZED BODIES</b></p> <p>Only contractors registered with the Electrical Contracting Board of South Africa in accordance with the Regulations of the Occupational Health and Safety Act will be accepted and permitted to do work under this contract.</p>												
4.5	<p><b>AGRÉMENT CERTIFICATES</b></p> <p>Not applicable</p>												
4.6	<p><b>PLANT AND MATERIAL PROVIDED BY THE EMPLOYER</b></p> <p>Not applicable</p>												
4.7	<p><b>SERVICES AND FACILITIES PROVIDED BY THE EMPLOYER</b></p> <p>Not applicable</p>												
4.8	<p><b>OTHER SERVICES AND FACILITIES</b></p> <p>The Contractor shall provide any artificial lighting which may be necessary or required for the proper execution of the works, and provide electric power and water required by all Sub-Contractors, Nominated Sub-Contractors and Sub-Contractors appointed directly by the Administration.</p> <p>The Contractor shall give all notices and pay all fees in connection with temporary electrical and water connections and shall connect temporary Electrical and Water meters for and pay for all current and water consumed.</p> <p>The Contractor is advised that the permanent light fittings and water points of any kind installed in the Works are not to be used to provide temporary lighting and supplement water requirements for construction purposes.</p>												
5	<p><b><u>MANAGEMENT</u></b></p>												
5.1	<p><b>APPLICABLE SANS 1921 STANDARDS</b></p> <p>Tenderders are referred to SECTION 2 : SPECIFICATION DATA ASSOCIATED WITH SANS 1921-1:2004 IN THIS DOCUMENT</p>												
5.2	<p><b>RECORDING OF WEATHER</b></p> <p>The Contractor shall keep record of abnormal climatic conditions to facilitate the adjudication of claims for extension of the contract period.</p>												



The Contractor shall allow in his programme for the following number of days for rain days (rain > 10mm per day) as per the table below:

CURRENT YEAR			YEAR + 1	YEAR + 2
January	w/days		3	3
February	w/days		3	3
March	w/days		3	3
April	w/days		3	3
May	w/days		3	3
June	w/days		3	3
July	w/days		3	
August	w/days		3	
September	w/days		3	
October	w/days		3	
November	w/days		3	
December	w/days	3	3	

### 5.3 MANAGEMENT MEETINGS

In order to facilitate the smooth functioning of the Works and to ensure the closest co-operation between all the parties concerned, the Employer will call for regular meetings to be held on the site, at which a senior member of the Contracting firm and the General Foreman of the Works will always be required to be present. In addition to the above, other persons will be required to attend these meetings as and when their presence is necessary, e.g., Consultants in all disciplines, representatives of the various Sub-Contractors, etc. Proper minutes of these meetings will be kept by the Employer/Principal Agent and copies will be circulated to all persons attending the meetings and to others who need to be kept informed.

### 5.4 FORMS FOR CONTRACT ADMINISTRATION

The Employer shall provide all necessary forms.

### 5.5 ELECTRONIC PAYMENTS

The Contractor shall provide all required information to the Employer to facilitate electronic payments upon request.

### 5.6 DAILY RECORDS

The Contractor shall keep daily records of people and equipment employed as well as a site diary in respect of work performed on the site.

At the end of each week the Contractor shall provide the Principal Agent with a written record, in schedule form, reflecting the number and description of tradesmen and labourers employed by him and all Sub-Contractors on the works each day.

At the end of each week the Contractor shall provide the Principal Agent with a written record, in schedule form, reflecting the number, type and capacity of all plant, excluding hand tools, currently used on the works.

### 5.7 BONDS AND GUARANTEES

The Contractor shall within 10 calendar days after receiving notice from the Engineer and prior to receiving a completed copy of this agreement, including the schedule of deviations (if any), contact the Employer's agent (whose details are given in the contract data) to arrange the delivery of any bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the conditions of contract identified in the Contract Data.

### 5.8 PAYMENT CERTIFICATES

Requirements will be in accordance with the Employers prescriptions.



5.9	<b>PERMITS</b>  <p>The Contractor is advised that, in the case of an existing building or institution, all security measures in force will remain in operation and he must acquaint himself and his Employees with them as he and his Employees will at all times be subject to these measures.</p> <p>The Contractor will on no account extend his operations beyond the confines of the building site as indicated by the Employer and must ensure that all his Employees are made aware of these limits. Any Employee disregarding this instruction and found outside the limit of the building site without authority, shall be redeployed immediately and shall not again be employed on this Contract.</p> <p>The Contractor will be responsible for ensuring that this instruction is strictly enforced and must provide and remove upon completion or when directed, such other necessary temporary barriers, fences, etc., as may be required and is to allow opposite this item for any charges he may wish to make in this connection.</p> <p>The Employer will accept no responsibility whatsoever for damage to or the loss of plant, materials, etc., from the site.</p>
5.10	<b>PROOF OF COMPLIANCE WITH THE LAW</b>  <p>The following certificates must be provided before first delivery is taken:</p> <ul style="list-style-type: none"> <li>- HIV/STI Report (Bound into this document)</li> <li>- Electrical Compliance Certificate</li> <li>- Plumbing Compliance Certificate</li> <li>- Lightning Certificate</li> <li>- Soil Protection Certificate</li> <li>- Concrete test and cube certificates</li> <li>- Waterproofing Guarantee certificates</li> <li>- TR1 and TR2 prefabricated roof truss certificates</li> <li>- Soil compaction certificates</li> <li>- Electrical and Mechanical test certificates</li> <li>- Plumbing and drainage pressure test certificates</li> <li>- Fire Compliance Certificate</li> <li>- Entomology Certificate</li> <li>- SANS 10400-A:2010 compliance certificates</li> <li>- Latest National Building Regulation</li> </ul>
5.11	<b>INSURANCE PROVIDED BY THE EMPLOYER</b>  <p>Not Applicable</p>
	<b><u>SECTION 2</u></b>  <b><u>SPECIFICATION DATA ASSOCIATED WITH SANS 1921-2004</u></b>
Clause Numbers	
4.1.7	<b>The requirements for drawings, information and calculations for which the Contractor is responsible are:</b>
	<p>Prefabricated roof trusses design must be submitted for approval 30 days prior to erections.</p>
4.2.1	<b>The responsibility strategy assigned to the Contractor for the works is:</b>
	<p>Strategy A</p>
4.2.2	<b>The structural engineer is:</b>
	<p>IX Engineers.</p>
4.2.3	<b>Drawings &amp; other info are to be submitted in accordance with the contractors programme</b>
	<p>N/A</p>
4.3	<b>The planning, programme and method statement are to comply with the following:</b>
	<p>N/A</p>



4.12.1	<b>Samples of materials</b>  The work is to be executed with materials of the best specified and in the most substantial and workmanlike manner under the inspection of the Employer and to his satisfaction. The Contractor shall furnish, without delay, such samples as called for or may be called for by the Employer, who may reject all materials or workmanship not corresponding with the approved sample. The samples of materials, workmanship and finishes that the Contractor is to provide and deliver to the employer are: - Tile sample. - Brick sample. - Light fitting sample. - Screed panel 2m x 2m impact test. - Tested trial mix to be approved by the Engineer.
4.12.2	<b>Fabrication drawings that the contractor is to provide to the employer are:</b>  None
4.12.3	<b>Office accommodation, equipment, accommodation for site meetings and other facilities for use by the employer and his agents are:</b>  OFFICE FOR FOREMAN  Provide, erect, maintain and remove at completion a suitable temporary office for the Contractor or his Foreman, perfectly secured, lighted and ventilated and having a desk with drawers.  TELEPHONE  The Contractor shall provide a telephone on the site for the use of the Contractor and all Sub-Contractors for the duration of the Contract, and must make the necessary application for connection, give all notices and pay all fees, rentals and charges for the service and also for all calls.  OFFICE FOR INSPECTOR OF WORKS  Provide, erect, maintain and remove at completion a well constructed temporary office for the Inspector of Works not less than 4 x 3 m on plan and 3 m high to eaves to the approval of the Employer. The office shall be constructed of wood framing covered externally with corrugated iron or corrugated asbestos and with a lean-to roof covered with the same material as the external wall covering. The office shall be lined internally with soft board or other approved material and a ceiling shall be provided of the same material as the internal lining. A suspended wood floor shall be provided and is to finish not less than 300 mm above the ground level. A lockable door and a window, which provides adequate light and ventilation, shall be fitted. An office constructed of 115 mm thick brick-work and provided with a screeded concrete floor and roofed and ceiled as above described may be accepted as an alternative but prior permission of the Employer will be necessary before construction of such an office is commenced and his requirements shall be stated and fulfilled by the Contractor. The office shall be fitted in an approved manner with a sloping topped desk of height and length suitable for the laying out and studying of drawings, a desk or table with not less than two lock-up drawers, shelves, seating and wash-stand, and the Contractor shall provide all necessary attendance.  TELEPHONE IN OFFICE FOR INSPECTOR OF WORKS  The Contractor shall arrange for the installation of a lockable telephone in the Office for the Inspector of Works for the duration of the Contract. The Contractor will be required to make the necessary application for connection and give all notices on behalf of the Employer. The Employer will, however, be responsible for the direct payment of all fees, rentals and other charges by Telkom for the service for the Inspector of Works and for all calls made from this telephone.



	<p>SHED</p> <p>Provide, erect, maintain and remove at completion, ample temporary sheds for the proper storage of materials and for the use of the workmen, and remove when no longer required.</p>
<p><b>4.14.6</b></p>	<p><b>The requirement for provision and erection of signboards are:</b></p> <p>Supply, erect, maintain and remove at completion a painted notice board, size overall 2800 x 2345 mm high sign written to detail as Drawing No. T9506 which drawing is available from offices of the Department of Public Works. Only the official notice board is to be displayed on the site and no Sub-Contractor's boards will be permitted. The Contractor, at his own cost, may provide a board on which all sub-contract firms' names may be sign written. The notice board is to be to the approval of the Employer and is to be maintained in first class condition and placed where directed at the entrance to the site and remain there for the duration of the Contract.</p>
<p><b>4.17.1</b></p>	<p><b>Requirement for the termination, diversion or maintenance of existing services:</b></p> <p>Should the Contractor come in contact with any underground cables or pipes during excavations, immediate notification must be made to the Employer and all work in the vicinity of such cables, pipes, etc., shall cease until authority to proceed has been obtained from the Employer. Should the Contractor damage underground cables or pipes resulting in a disruption of services to an existing institution such damage shall be repaired immediately.</p>
<p><b>4.17.3</b></p>	<p><b>Services which are known to exist on the site:</b></p> <p>Investigate and provide detail drawings.</p>
<p><b>4.17.4</b></p>	<p><b>Requirement for detection apparatus</b></p> <p>None</p>
<p><b>4.18</b></p>	<p><b>ADDITIONAL HEALTH AND SAFETY REQUIREMENTS ARE:</b></p> <p>By the submission of a tender, any Tenderder will, if awarded the contract to which this tender document relates, be deemed to be the mandatory as envisaged by Section 37 (2) of the Act. As a mandatory the successful Tenderder will be deemed to be the "principal contractor" and an employer in his/her/their own right with duties as prescribed in the Act and accordingly will be deemed to have agreed to be solely responsible for ensuring that in connection with the service to which this tender document relates, all work will be performed and machinery and plant used in accordance with the Act. Should the Contractor, for whatever reason be unable to perform as required by the Act, the Contractor undertakes to inform the Employer accordingly.</p> <p>Tenderders are advised that it is a Condition of this Tender that a 'Construction Phase Safety, Health and Environmental Plan' specifically relates to the project for which tenders are being submitted and must be prepared by the Tenderder and submitted with the other tender documents at the time of tender. Failure to do so Tenderders are therefore advised to study the 'Construction Safety, Health and Environmental Specification' which is issued as part of this tender document, the Model Preambles to Trades - 2008, any project Specification included in this tender document and any and all drawings which are referred to and issued as part of this tender document before preparing their own project specific 'Construction Phase Safety, Health and Environmental Plan'. Tenderders are also advised that such a plan which is submitted with a tender but is incomplete or considered inadequate by the Employer or his Representative will invalidate the tender.</p> <p>The Contractor will be deemed to have satisfied himself with his obligations in terms of the Act and to have allowed for all costs arising from compliance with the Act as no claim for extra costs arising from compliance with, and obligations in terms of the Act will be entertained.</p>
<p><b>4.22</b></p>	<p><b>WORK BY NOMINATED AND SELECTED SUBCONTRACTORS COMPRISE:</b></p> <p>[Provide list of applicable contractors]</p>