

## INDEPENDENT DEVELOPMENT TRUST

TENDERING PROCEDURES, RETURNABLE DOCUMENTS, AGREEMENT AND CONTRACT DATA, SCOPE OF WORK AND SITE INFORMATION

APPOINTMENT OF A CONTRACTOR FOR THE DEMOLITION OF ASBESTOS STRUCTURES AND CONSTRUCTION OF NEW HOSTELS FOR MOEDWIL COMBINED SCHOOL IN BOJANALA DISTRICT FOR THE DEPARTMENT OF EDUCATION, NORTH WEST PROVINCE.

**BID NO.: DOE14NWER015A** 

**CLOSING DATE AND TIME: 25 APRIL 2024 at 12h00** 

#### **Independent Development Trust**

SCM / Technical Enquiries

E-mail: WisdomN@idt.org.za and LinnetM@idt.org.za

Bidder:
CIDB Registration Number:
CSD Registration Number:
COIDA / FEMA Certificate Number:
Contact Person:
Contact Details:

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#### Part C3: Scope of Work

The scope of works comprises of the demolition of asbestos structures, construction of 4x boys and 5x girls' hostels, Construction of 4x Staff Houses, Hostel Administration block, 2x Guard Houses, Hostel Master & Mother Houses and construction of other facilities and external works.

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Development Standard and the (b) Indirect Targeting Standard. Although in the case of these two standards there are no returnable documents, tenderers are sensitized that the proforma documents as listed below, shall be completed by the successful contractor after award of the contract within the stipulated period. (The proforma documents are provided in the tender data for information purposes only).

- Form A 1 List of recognized Skills Development Agencies, Form A 2 Baseline Training Plan, Form A 3 Project Interim Report, Form A 4 Supervisor Agreement, Form A 5 Project Completion Report. (Skills Development Standards)
- Project Interim Report, Project Completion Report and Declaration. (Indirect Targeting Standards)
- Form A 1 List of recognized Skills Development Agencies, Form A 2 Baseline Training Plan, Form A 3 Project Interim Report, Form A 4 Supervisor Agreement, Form A 5 Project Completion Report. (Skills Development Standards)
- Project Interim Report, Project Completion Report and Declaration. (Indirect Targeting Standards)

Addendum
Addendum to the Contract

**Annexures** 

Annexure A: Architectural Drawings

Annexure B: Electrical Specification & Drawings Annexure C: Civil and Structural Drawings

APPOINTMENT OF A CONTRACTOR FOR THE DEMOLITION OF ASBESTOS STRUCTURES AND CONSTRUCTION OF NEW HOSTELS FOR MOEDWIL COMBINED SCHOOL IN BOJANALA DISTRICT FOR THE DEPARTMENT OF EDUCATION, NORTH WEST PROVINCE.

**BID NUMBER: DOE14NWER015A** 

CLOSING DATE AND TIME: 25 APRIL 2024 at 12h00

On behalf of the Department of Education, North West Province, the Independent Development Trust, invites bidders for the APPOINTMENT OF A CONTRACTOR FOR THE DEMOLITION OF ASBESTOS STRUCTURES AND CONSTRUCTION OF NEW HOSTELS FOR MOEDWIL COMBINED SCHOOL IN BOJANALA DISTRICT FOR THE DEPARTMENT OF EDUCATION, NORTH WEST PROVINCE.

Only tenders who have a CIDB contractor grading of **Grade 8GB (General Building)**; and comply with the tender conditions will be legible.

#### INDEPENDENT DEVELOLPMENT TRUST

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

On behalf of the Department of Education, North West Province, the Independent Development Trust, invites bidders for the APPOINTMENT OF A CONTRACTOR FOR THE DEMOLITION OF ASBESTOS STRUCTURES AND CONSTRUCTION OF NEW HOSTELS FOR MOEDWIL COMBINED SCHOOL IN BOJANALA DISTRICT FOR THE DEPARTMENT OF EDUCATION, NORTH WEST PROVINCE.

#### **Notice and Invitation**

It is estimated that tenderers should have a CIDB contractor grading of 8GB.

Documents will be available from the 15 March 2024.

Tender documents must be downloaded from IDT website and National Treasury e-tender on the following link: <a href="http://www.idt.org.za/business">http://www.idt.org.za/business</a> opportunities/current-tenders ,and <a href="http://www.treasury.gov.za">www.treasury.gov.za</a>

BID enquiries relating to the issues of these documents may be addressed to:

#### **Bid Administration Enquiries**

E-mail: WisdomN@idt.org.za

#### **Technical Enquiries**

E-mail: LinnetM@idt.org.za

Tender documents to be submitted at the tender box of the IDT office:

INDEPENDENT DEVELOPMENT TRUST (NORTH WEST OFFICES)
4071 Joules Street
Industrial Site
MAHIKENG
2745

A compulsory clarification meeting with representatives of the employer will take place on site at MOEDWIL COMBINED SCHOOL IN BOJANALA DISTRICT, OF THE NORTH WEST PROVINCE. The GPS coordinates are 25.63129"S and 26.9715"E. on 25 MARCH 2024 starting at 14h00. Tenderers must sign the attendance register in the name of the tendering entity.

The closing date and time for receipt of tenders is 25 APRIL 2024 at 12H00PM.

Requirements for sealing, addressing, delivery and assessment of tenders are stated in the Tender Data.

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Part T1.1: Tendering procedures DOE14NWER015A

T1.1

The evaluation of the tender will be carried out in three (3) phases.

#### **Phase 1: Mandatory Requirements**

Only bidders, who meet the following requirements will be eligible for further evaluation.

- Letter of Authority for signatory and / or Board / company resolution (for companies that has more than one Directors)
- The bidder must provide proof of valid CIDB registration or CIDB number— **Grade 8GB** (JV's to submit consolidated CIDB Grading, which equates to the required grading)
- The bidder must provide a valid COIDA or FEMA certificate. (If JV, all partners must submit COIDA or FEM Certificates) Sole Proprietor's without employees are expected to submit from the Department of Labor a Tender Letter for a Sole Proprietor).
- Attendance to the compulsory site briefing meeting Briefing session attendance register must be signed at Briefing Meeting
- The bidder must duly complete and sign in full:
  - SBD 1: Invitation to bid,
  - SBD 4: Bidder's disclosure and
  - SBD 6.1 Preference points claim form in terms of PPPFA, Procurement Regulations 2022
- The bidder must complete Form of Offer, fully signed and witnessed in the tender document in full
- Joint Venture (JV) agreement, if applicable, JV agreement must be signed by all parties of the
- Acknowledgement of Addenda to Tender Documents (if applicable)
- The bidder must be registered on Central Supplier Database (CSD) and provide MAAA Number to verify registration)

**Note:** (i) Failure to submit any of the above documents / requirements shall result indisqualification of the bid.

- (ii) If any of the Directors are in the Employment of the State shall result in disqualification of the bid.
- (iii) If the bidder is listed on National Treasury List of Restricted Suppliers shall result in disqualification of the bid.
- (iv) If any of its Directors are Listed on the Register of Defaulters shall result in disqualification of the bid.

The IDT will assess all bids received based on its procurement policy in the event that information is required from the bidder/s, the IDT reserves its rights to request the information which shall be submitted within seven (7) working days from request and failure to submit will result in disqualification.

Non-Compulsory Document, but mandatory to comply at the award stage

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- Tax Compliance Letter with a unique pin
- Compliant Central Supplier Database (CSD) Report

Only bidders who met all mandatory requirements will be evaluated further on functionality.

Phase 2: Functionality criteria

Criteria	Points Allocation
Relevant Previous Experience on completed projects of a similar nature and value in the last ten (10) years (Refer to Form T2.2.2)	35 points
Signed and stamped client references on the same projects listed above (both Client & Client Representative). OR Signed and Contactable reference letters from previous clients.	10 points
Qualifications, Skills and Experience of project key resources	35 points
Financial Viability	20 points
Total	100 points
NB: Minimum qualifying functionality threshold is <b>75 points out 100</b>	

**Similar Nature of work for evaluation** Construction of Buildings (No points will be allocated for other nature and value of works like Civil Engineering projects, Water projects, Transport Projects, Traffic Engineering Projects, and all Electrical & Mechanical Engineering projects)

#### **Supporting Documents Required**

- CIPC Document
- Original certified ID Copies of directors (not older than 6 Months)
- Particulars of Tender's Projects (Appointment letters and completion certificates)
- Schedule of Tenderer's References
- CV of Key Personnel including the OHS
- Original certified copies of Certificates/qualifications (not older than 6 Months)
- Original certified copies of all Professional Registrations of Staff.
- Signed and stamped banking/financial documentation

Only bidders who are competent and who have achieved the minimum functionality threshold of 75 points or higher will be evaluated on 90/10 (Price / Specific Goals) points based on the Preferential Procurement Regulations of 2022.

#### **Phase 3: Preferential Point System**

In terms of Regulation 4(2); 5(2); 6(2) and 7(2) of the Preferential Procurement Regulations, preference points must be awarded for specific goals stated in the tender. For the purposes of this tender the tenderer will be allocated points based on the goals stated in table 1 below as may be supported by proof/ documentation stated in the conditions of this tender:

In cases where organs of state intend to use Regulation 3(2) of the Regulations, which states that, if it is unclear whether the 80/20 or 90/10 preference point system applies, an organ of state must, in the tender documents, stipulate in the case of—

(a) an invitation for tender for income-generating contracts, that either the 80/20 or 90/10 preference point system will apply and that the highest acceptable tender will be used to determine the applicable preference point system; or

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(b) any other invitation for tender, that either the 80/20 or 90/10 preference point system will apply and that the lowest acceptable tender will be used to determine the applicable preference point system, then the organ of state must indicate the points allocated for specific goals for both the 90/10 and 80/20 preference point system.

Table 1: Specific goals for the tender and points claimed are indicated per the table below.

(Note to organs of state: Where either the 90/10 or 80/20 preference point system is applicable, corresponding points must also be indicated as such.

Note to tenderers: The tenderer must indicate how they claim points for each preference point system.)

The specific goals allocated points in terms of this tender	Number of points  allocated  (90/10 system)  (To be completed by the organ of state)	Number of points allocated (80/20 system) (To be completed by the organ of state)	Number of points claimed (90/10 system)  (To be completed by the tenderer)	Number of points claimed (80/20 system) (To be completed by the tenderer)
Women Ownership	3	6		
Youth Ownership	3	6		
People with Disabilities Ownership	2	4		
Black Male Ownership	2	4		

#### Source Documents to be submitted with the Bid or BID

\*CIPC Document (Company Registration Document will be required for verification (CIPC DOC))

\*Woman (Originally Certified ID Document)

\*Youth (Originally Certified ID Document)

\*People with Disability (Letter from the Dr. Confirming the Disability)

\*Black Ownership (Originally Certified ID Document)

A compulsory clarification meeting with representatives of the employer will take place on site at MOEDWIL COMBINED SCHOOL IN BOJANALA DISTRICT, OF THE NORTH WEST PROVINCE. The GPS coordinates are 25.63129"S and 26.9715"E. on 25 MARCH 2024 starting at 14h00. Tenderers must sign the attendance register in the name of the tendering entity.

Note: Bidders are requested and encouraged to arrive early before the commencement of the briefing session. No late arrivals will be allowed in the briefing meeting.

The IDT may conduct a risk assessment on recommended bidder/s. Bidders are requested to price each line item of the Bills of Quantities (BOQ) in black ink. Should the bidder/s be deemed too risky to complete the project based on the IDT's risk assessment report, they will be subjected for further clarification.

Tender Documents may be downloaded from the IDT's website following the link http://www.idt.org.za/business-opportunities/current-tenders/ as well as on the e-tenders portal, www.etenders.gov.za. Tenders must only be submitted on the tender documentation that is downloaded from the stipulated websites. The retyping of the tender document is not permitted.:

All SCM and Technical enquiries relating to this bid must be directed in writing to <u>WisdomN@idt.org.za</u> and <u>LinnetM@idt.org.za</u> during office hours (08h30 – 17h00) weekdays. Enquiries will be accepted until the 18 April 2024 at 17h00. No Verbal or telephonic queries will be attended to. Any attempt to verbally contact the IDT's Agent or IDT's employee to influence outcome of this tender will lead to disqualification.

## On submission of Tender documents, the bidder must submit a signed original bid document in hard copy.

Requirements for sealing, addressing, delivery, opening and assessment of bids are stated in the Tender Data. (Refer to Section T1.2)

The bid closing date is **25 APRIL 2024 at 12h00** and bids shall be submitted in the tender box at IDT's North West Regional Office;

4071 Joules Street Industrial Site Mahikeng 2735

Telegraphic, telephonic, telex, facsimile, e-mail and late bids WILL NOT be accepted.

The Independent Development Trust does not bind itself to accept the lowest or any particular bid.

**T1.2 BID DATA** 

#### INDEPENDENT DEVELOPMENT TRUST

# APPOINTMENT OF A CONTRACTOR FOR THE DEMOLITION OF ASBESTOS STRUCTURES AND CONSTRUCTION OF NEW HOSTELS FOR MOEDWIL COMBINED SCHOOL IN BOJANALA DISTRICT FOR THE DEPARTMENT OF EDUCATION, NORTH WEST PROVINCE.

#### T1.2 Bid Data

The conditions of tender are the Standard Conditions of Tender as contained in Annex F of the CIDB Standard for Uniformity in Construction Procurement. (See <a href="www.cidb.org.za">www.cidb.org.za</a>) which are reproduced without amendment or alteration for the convenience of tenderers as an Annexure to this Tender Data.

The Standard Conditions of Tender make several references to the Tender Data for details that apply specifically to this tender. The Tender Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the standard conditions of tender. Each item of data given below is cross-referenced to the clause in the Standard Conditions of Tender to which it mainly applies.

#### The additional conditions of bid are:

Clause number	APPOINTMENT OF A CONTRACTOR FOR THE DEMOLITION OF ASBESTOS STRUCTURES AND CONSTRUCTION OF NEW HOSTELS FOR MOEDWIL COMBINED SCHOOL IN BOJANALA DISTRICT FOR THE DEPARTMENT OF EDUCATION, NORTH WEST PROVINCE. – BID NUMBER: DOE14NWER015A
F.1.1	The employer is the Independent Development Trust on behalf of the Department: Education, North West Province
F.1.2	The bid documents issued by the employer comprises:
	THE BID  Part T1: Bidding procedures T1.1 Bid notice and invitation to bid T1.2 Bid data
	Part T2: Returnable documents T2.1 List of returnable documents T2.2 Returnable schedules
	THE CONTRACT
	Part C1: Agreements and contract data C1.1 Form of offer and acceptance C1.2 Contract data C1.3 Contract Skills Development Goal (CSDG) C1.4 Form of Guarantee C1.5 Adjudicator's agreement C1.6 Agreement in terms of Occupational Health and Safety C1.7 Waiver of Lien
	Part C2: Pricing data C2.1 Pricing instructions C2.2 Bills of quantities
	Part C3: Scope of work C3 Scope of work

Tender Part T1.2: Bid Data DOE14NWER015A

#### Part C3: Scope of work C4 Site Information This tender applies to both the (a) Skills Development Standard and the (b) Indirect Targeting Standard. Although in the case of these two standards there are no returnable documents, tenderers are sensitized that the proforma documents as listed below, shall be completed by the successful contractor after award of the contract within the stipulated period. (The proforma documents are provided in the tender data for information purposes only). • Form A 1 List of recognized Skills Development Agencies, Form A 2 Baseline Training Plan, Form A 3 Project Interim Report, Form A 4 Supervisor Agreement, Form A 5 Project Completion Report. (Skills **Development Standards**) • Project Interim Report, Project Completion Report and Declaration. (Indirect Targeting Standards) Addendum to the Contract Annexures Annexure A: Architectural Drawings Annexure B: Electrical Specifications & Drawings Annexure C: Civil and Structural Drawings F.1.4 The employer's agent is: TIKI ARCHITECTS Mr. Z. Sithole 43 Corner of Clarendon Road and Dadford Street Golf View Mafikeng, 2745 E-mail: sithole@tikiarchitects.com F.2.1 Eligibility Submit a tender offer only if the Tenderer satisfies the criteria stated hereunder and if the Tenderer, or any F.2.1.1 of his principals, is not under any restriction to do business with the employer (IDT) or the North West Department of Education F.2.1.1.1 Only those bidders who satisfy the following eligibility criteria are eligible to submit tenders: **Phase 1: Mandatory Requirements** Only bidders, who meet the following requirements will be eligible for further evaluation. Letter of Authority for signatory and / or Board / company resolution (for companies that has more than one Directors) The bidder must provide proof of valid CIDB registration or CIDB number- Grade 8GB (JV's to submit consolidated CIDB Grading, which equates to the required grading) The bidder must provide a valid COIDA or FEMA certificate. (If JV, all partners F.2.1.1.2 must submit COIDA or FEM Certificates) Sole Proprietor's without employees are expected to submit from the Department of Labor a Tender Letter for a Sole Proprietor). Attendance to the compulsory site briefing meeting - Briefing session attendance register must be signed at Briefing Meeting The bidder must duly complete and sign in full:

- SBD 1: Invitation to bid.
- SBD 4: Bidder's disclosure and
- SBD 6.1 Preference points claim form in terms of PPPFA, Procurement Regulations 2022
- The bidder must complete Form of Offer, fully signed and witnessed in the tender document in full
- Joint Venture (JV) agreement, if applicable, JV agreement must be signed by all
  parties of the JV
- Acknowledgement of Addenda to Tender Documents (if applicable)
- The bidder must be registered on Central Supplier Database (CSD) and provide MAAA Number to verify registration)

Note:

- Failure to submit any of the above documents / requirements shall result indisqualification of the bid.
- (v) If any of the Directors are in the Employment of the State shall result in disqualification of the bid.
- (vi) If the bidder is listed on National Treasury List of Restricted Suppliers shall result in disqualification of the bid.
- (vii) If any of its Directors are Listed on the Register of Defaulters shall result in disqualification of the bid.

#### **CIDB Grading**

In order to be considered for an appointment in terms of this bid, the bidder must be registered with the CIDB, in a contractor grading designation in accordance with the sum tendered for a **Grade 8GB** class of construction work.

Joint ventures are eligible and preferred with particular reference to local participation and as such submit tenders provided that:

- 1. every member of the joint venture is registered with the CIDB;
- 2. the lead partner has a contractor grading designation in the Grade 8GB of construction work; and
- the combined contractor grading designation calculated in accordance with the Construction Industry Development Regulations is equal to 8GB contractor grading designation determined in accordance with the sum tendered for a (GB) General Building class of construction work

#### Key Personnel

In order to be considered for an appointment in terms of this bid, the bidder must have the following key personnel in its permanent employment at the close of the bid. Alternatively, a signed undertaking from an organization having the required personnel, stating that they will undertake the necessary work on behalf of the bidder in terms of a sub-consultant agreement, will be acceptable. Such undertaking must be attached to the "Key Personnel" schedule, Part T2.2: Returnable Schedules.

Individuals must be identified for each of the key personnel listed on the "Key Personnel" schedule, Part T2.2: Returnable Schedules.

Where the key personnel are no longer accessible to undertake the necessary work after the award of the tender, the contractor shall within a period of 5 working days replace the key personnel listed on the "Key Personnel" schedule, Part T2.2: Returnable Schedules with a person with equivalent competencies and subject to approval by the employer.

#### F.2.6

#### Acknowledge addenda

Acknowledge receipt of addenda to the bid documents, which the employer may issue, and if necessary apply for an extension to the closing time. If the Addenda has financial implications, failure to acknowledge the addenda may eliminate your bid form evaluation. This is due to incomparability of offers with the rest of the bidders

Clause number	APPOINTMENT OF A CONTRACTOR FOR THE DEMOLITION OF ASBESTOS STRUCTURES AND CONSTRUCTION OF NEW HOSTELS FOR MOEDWIL COMBINED SCHOOL IN BOJANALA DISTRICT FOR THE DEPARTMENT OF EDUCATION, NORTH WEST PROVINCE. – BID NUMBER: DOE14NWER015A
F.2.7	Clarification Meeting
	A compulsory clarification meeting with representatives of the employer will take place on site at coordinates MOEDWIL COMBINED SCHOOL IN BOJANALA DISTRICT, OF THE NORTH WEST PROVINCE. The GPS coordinates are 25.63129"S and 26.9715"E. on 25 MARCH 2024 starting at 14h00. Tenderers must sign the attendance register in the name of the tendering entity. Bidders shall sign the attendance register in the name of the bidding entity.
	Addenda if any will be issued tobidders appearing on the attendance register.
	Note: Bidders are advised to allow enough travelling time to the briefing meeting.
F.2.8	Seek clarification
	Bidders can request clarification of the bid documents, if necessary, by notifying the employer in writing to <a href="LinnetM@idt.org.za"><u>LinnetM@idt.org.za</u></a> during office hours (08h30 – 17h00) weekdays at least 5 (five) working days before the closing time and date stated in F.2.15.
F2.9	Insurances
	Refer to contract data for insurance requirements. (Refer to Section C1.2)
F.2.11	Alterations to documents
	Do not make any alterations or additions to the bid documents, except to comply with instructions issued by the employer, or necessary to correct errors made by the bidder.  All signatories to the bid offer shall initial all such alterations. Erasures and the use of masking fluid are prohibited.
F.2.12	Alternative Bid Offers
	No alternative tender offers will be considered.
F.2.13	Submitting a Bid Offer
F.2.13.4	The bidder will sign the original of the bid offer.
F2.13.5	The bidder must submit tender offer in a sealed envelope. Clearly marked APPOINTMENT OF A CONTRACTOR FOR THE DEMOLITION OF ASBESTOS STRUCTURES AND CONSTRUCTION OF NEW HOSTELS FOR MOEDWIL COMBINED SCHOOL IN BOJANALA DISTRICT FOR THE DEPARTMENT OF EDUCATION, NORTH WEST PROVINCE. — BID NUMBER: DOE14NWER015A
F.2.13.6	On submission of Tender documents, the bidder must submit a signed original bid document in hard copy and one softcopy of the bid document using USB-memory stick / Disc (read only).  The bid document softcopy on the USB-memory stick should be indexed the same way as the original bid hard copy document, which can be returned back to the bidder after the evaluation process is completed.
	Two-envelope system – not applicable
F.2.13.7	The employer's details and address for delivery of tender offers and identification details that are to be shown on each tender offer package are:
	Employer's address: North West Regional Office 4071 Joules Street Industrial Site Mahikeng 2735
F.2.13.9	Identification details:
	Tender No: DOE14NWER015A  Description APPOINTMENT OF A CONTRACTOR FOR THE DEMOLITION OF ASBESTOS  STRUCTURES AND CONSTRUCTION OF NEW HOSTELS FOR MOEDWIL COMBINED SCHOOL IN BOJANALA DISTRICT FOR THE DEPARTMENT OF EDUCATION, NORTH WEST PROVINCE. – BID NUMBER: DOE14NWER015A.
	Tender offers submitted by facsimile, e-mail or reproduced will be rejected by the employer. Tender documents must be submitted in an original format as issued by the employer.

Clause number	APPOINTMENT OF A CONTRACTOR FOR THE DEMOLITION OF ASBESTOS STRUCTURES AND CONSTRUCTION OF NEW HOSTELS FOR MOEDWIL COMBINED SCHOOL IN BOJANALA DISTRICT FOR THE DEPARTMENT OF EDUCATION, NORTH WEST PROVINCE. – BID NUMBER: DOE14NWER015A
F.2.15	Closing Time of Tender
F.2.15.1	The closing time for submission of tender offers is by no later than 25 April 2024 at 12h00.
	Location of tender box: North West Regional Office 4071 Joules Street Industrial Site Mahikeng 2735
	Telephonic, telegraphic, telex, facsimile or e-mailed tender offers will not be accepted.
F.2.16	Tender Offer Validity
F.2.16.1	The bidder is required to hold the bid offer valid for a period of <b>90 calendar days</b> (from the bid closing date)
F.2.19	Inspections, Tests and Analysis
	Access shall be provided for inspections, tests and analysis as may be required by the employer.
F.2.23	Certificates
	The bidder is required to submit with his tender a Contractor Registration number issued by the Construction Industry Development Board (CIDB).
	Where a bidder bids through joint venture formation, such bidder should include a joint venture agreement duly signed by each partner of such joint venture and an original consolidated B-BBEE certificate.
F3.5	Two-envelope system – not applicable
F.3.1	Evaluation of Tender Offers
	The procedure for the evaluation of a responsive tender will be in terms of the Preferential Procurement Regulations 2022 on a 80/20 or 90/10 preference point system.
F.3.11.3	In terms of Regulation 4(2); 5(2); 6(2) and 7(2) of the Preferential Procurement Regulations, preference points must be awarded for specific goals stated in the tender. For the purposes of this tender the tenderer will be allocated points based on the goals stated in table 1 below as may be supported by proof/documentation stated in the conditions of this tender:
	In cases where organs of state intend to use Regulation 3(2) of the Regulations, which states that, if it is unclear whether the 80/20 or 90/10 preference point system applies, an organ of state must, in the tender documents, stipulate in the case of—
	(a) an invitation for tender for income-generating contracts, that either the 80/20 or 90/10 preference point system will apply and that the highest acceptable tender will be used to determine the applicable preference point system; or
	(b) any other invitation for tender, that either the 80/20 or 90/10 preference point system will apply and that the lowest acceptable tender will be used to determine the applicable preference point system, then the organ of state must indicate the points allocated for specific goals for both the 90/10 and 80/20 preference point system.

## Clause number BID DATA FOR APPOINTMENT OF A CONTRACTOR FOR THE DEMOLITION OF ASBESTOS STRUCTURES AND CONSTRUCTION OF NEW HOSTELS FOR MOEDWIL COMBINED SCHOOL IN BOJANALA DISTRICT FOR THE DEPARTMENT OF EDUCATION, NORTH WEST PROVINCE. – BID NUMBER: DOE14NWER015A

#### F.3.11.8 Scoring Preference

#### Table 1: Specific goals for the tender and points claimed are indicated per the table below.

(Note to organs of state: Where either the 90/10 preference point system is applicable, corresponding points must also be indicated as such.

Note to tenderers: The tenderer must indicate how they claim points for each preference point system.)

The specific goals allocated points in terms of this tender	Number of points allocated (90/10 system) (To be completed by the organ of state)	Number of points claimed (90/10 system) (To be completed by the tenderer)
Women	3	
Ownership		
Youth Ownership	3	
People with Disabilities	2	
Ownership		
Black Male Ownership	2	

#### Source Documents to be submitted with the Bid or RFQ

\*CIPC Document (Company Registration Document will be required for verification (CIPC DOC))

\*Woman (Originally Certified ID Document)

\*Youth (Originally Certified ID Document)

\*People with Disability (Letter from the Dr. Confirming the
Disability) \*Black \*Ownership (Originally Certified ID Document)

F.3.11.9 The quality criteria and maximum score in respect of each of the criteria are as follows:

Criteria	Points Allocation
Relevant Previous Experience on completed projects of a similar nature and value in the last ten (10) years	35 points
B. Signed and stamped client references on the same projects listed above (both Client & Client Representative). OR Signed and Contactable reference letters from previous clients.	10 points
C. Qualifications, Skills and Experience of project key resources	35 points
D. Financial Viability	20 points
Total	100 points
NB: Minimum qualifying functionality threshold is <b>75 points out 100</b>	•

## A. RELEVANT PREVIOUS EXPERIENCE ON COMPLETED PROJECTS OF A SIMILAR NATURE AND VALUE IN THE LAST TEN (10) YEARS (35 POINTS):

Points allocated for proven track record based on previous projects executed to completion by the bidder in consideration of similar kind and complexity. The similarity refers to the construction of building projects in tepast 10 years. Buildings (No points will be allocated for other nature and value of works like Civil Engineering projects, Water projects, Transport Projects, Traffic Engineering Projects and all Electrical & Mechanical Engineering projects)

The scoring on this item will be carried out as follows:

- i. The bidder shall submit signed appointment letter(s) in the relevant official Client letterhead clearly showing the project value / amount
- ii. The bidder shall submit signed proof of project completion (JBCC or other Completion Certificate or letter from the client (client letter head) confirming completion of such a project).
- iii. For subcontracted work submit the appointment letter and completion certificate as stated in (i) & (ii) together with the appointment letter and completion certificate for the main contractor

## NOTE: Failure to submit any of the above requirements will result in no points being awarded to the bidder.

Evaluation points will be awarded in terms of the following table below:

	Similar completed projects (as per CIDB level 8GB – Tender Value Limit between R 200 000 000 to R 60 000 000) Similar completed	Similar Completed projects (as per CIDB level 7GB – Tender Value Limit between R60 000 000 to R20 000 000)	Similar Completed projects (as per CIDB level 6GB – Tender Value Limit between R20 000 000 to R10 000 000)	Non-Submission, Irrelevant Evidence, Incomplete Evidence
Project A	7	5	3	0
Project B	7	5	3	0
Project C	7	5	3	0
Project D	7	5	3	0
Project E	7	5	3	0
Points	35	25	15	0

The scoring on this item will be carried out as follows:

- iv. The bidder shall submit signed appointment letter(s) in the relevant official Client letterhead clearly showing the project value / amount
- v. The bidder shall submit signed proof of project completion

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NOTE: Failure to submit any of the above requirements will result in no points being awarded to the bidder.

Points allocated for client reference (As per returnable schedule T 2.2.4) based on previous completed projects as above executed by the bidder in consideration:

Points will be allocated based on:

- vi. Receipt of signed and stamped client references in the forms supplied in this document
- vii. Favorable stamped client reference letter

NOTE: Failure to submit any of the above requirements will results in no points being awarded to the bidder.

Evaluation points will be awarded in terms of the following table:

Projects	Not Acceptable	Favorable (Good) client reference
Project A	0	2
Project B	0	2
Project C	0	2
Project D	0	2
Project E	0	2
Points	0	10

## B. QUALIFICATIONS, SKILLS AND EXPERIENCE OF PROJECT KEY RECOURCES (35 POINTS):

Points allocated for required

- i. competencies,
- ii. qualifications (i.e degree or diploma)
- iii. submission of CV's
- iv. submission of relevant certified (not older than 6 months) evidence of qualifications and certificates of allocated Required Key Project Resources.
- v. Professional registration related to building works

**NOTE:** Points allocation with submission of all required documentation and will be rounded off to the nearest lowest number

Evaluation points will be awarded in terms of the following table A (28 points):

Category	Professional Registration (5 points)	Qualification within the Built Environment (7 points)			Years of experience within the BuiltEnvironment (16 points)			
	(Related to Building works, SACPCMP, SACQSP, SACAP) excl. ECSA	Degree or higher	Diplom a	National Certifica teor similar	10 or above years	5 - 9 years	1 - 4 years	< 1 year
Project / Contract Manager	5	5	4	3	7	5	3	1
Site Agent	Not required	1	1	1	5	4	3	1
Foreman	Not required	1	1	1	4	4	3	1
Total Points	5	7	6	5	16	13	9	3

#### Evaluation points will be awarded in terms of the following table B (7 points):

Category	Description	Points
Health and Safety	Professional Registration with SACPCMP (Mandatory)	7
Resource	No submission	0

Where the Health and Safety officer allocated to this project is no longer accessible to undertake the necessary work after the award of the tender, the contractor shall within a period of 5 working days replace the Construction Health and Safety Officer with a person with equivalent competencies subject to approval by the employer.

#### E. FINANCIAL VIABILITY (20 POINTS):

Points are allocated to contractors who provide at least one of the following verifiable documents:

Description	Points
<ul> <li>Signed and stamped bank rating Code "A" of R2 Million (whichever greater will be considered) over the period of 8 Months with the bank stamp not older than 12 months; or</li> </ul>	20
<ul> <li>Recent audited annual financial statements         Not older than 12 months with Cash &amp; Cash         Equivalent of R2 Million and above signed by auditors and company representative; or     </li> </ul>	
Signed and stamped Credit facility of 2 Million from an accredited financial institution not older than 12 months or Signed and stamped Bank Overdeeft.	
<ul> <li>Signed and stamped Bank Overdraft of 2 Million not older than 12 months</li> </ul>	
<ul> <li>Signed and stamped bank rating Code "B" of R1 Million (whichever greater will be considered) over the period of 12 Months with the bank stamp not older than 12 months; or</li> <li>Recent audited annual financial statements with Not older than 12 months Cash &amp; Cash Equivalent of R1 Million and above signed by auditors and company representative;</li> <li>Signed and stamped Credit facility of 1 Million from an accredited financial institution not older than 12 months or</li> <li>Signed and stamped Bank Overdraft of 1 Million not older 12 months</li> </ul>	10
Non-Submission: thresholds lower than above	0

NOTE: 20 points will be scored if at least one of the required documents listed above . Failure to submit will result in zero points for these criteria.

	,		
	WQ=W2 x So/Ms		
	<b>W2</b> =Total evaluation points for functionality	Formula used to calculate	
	· ·		
	as per Scorecard	Functionality points	
Quality Formula	'	- 1	
Quality i Orinidia			
	So = Functionality points allocated to the		
	bidder under consideration		

Minimum points to b	in respect of a su			
FINANCIAL OFFER/PRICE	80/90	Formula 2 Option 1,A=(1- {p-pm/pm})  pm =The comparative Price offer of the mean/average qualifying tenderer	Formula used to calculate Financial Offer/Price points	
		<b>p</b> =The comparative offer of the tender under consideration		
	80/90			

#### Notes:

- 1. Bidders are required to score minimum points of 75% for Functionality as stated in the tender data
- 2. Bidders who fail to meet the required minimum number of points for functionality as stated in the tender data shall be disqualified
- 3. Bidders who fail to disclose mandatory required information as per the returnable schedules shall be disqualified

#### 4. Bidders to submit the following for means of verification:

- a) Project list of similar completed projects
- b) Performance and quality reports from clients / consultants
- c) Certified certificates of qualification of key staff and CV's including references
- d) Traceable References for projects completed
- e) Traceable references for suppliers

### Clause BID DATA FOR APPOINTMENT OF A CONTRACTOR FOR THE DEMOLITION OF ASBESTOS STRUCTURES AND CONSTRUCTION OF NEW HOSTELS FOR MOEDWIL COMBINED number SCHOOL IN BOJANALA DISTRICT FOR THE DEPARTMENT OF EDUCATION, NORTH WEST PROVINCE. – BID NUMBER: DOE14NWER015A F.3.13 **Acceptance of Bid Offers** F.3.13.1 Bid offers will only be accepted if: a) the bidder has submitted an original valid Tax Clearance Certificate issued by the South African Revenue Services: b) the bidder is registered with the Construction Industry Development Board in an appropriate contractor grading designation; c) the bidder or any of its directors is not listed on the Register of Tender Defaulters in terms of the Prevention and Combating of Corrupt Activities Act of 2004 as a person prohibited from doing business with the public sector; d) the bidder has not: i) abused the Employer's Supply Chain Management System; or ii) failed to perform on any previous contract and has been given a written notice to this effect: e) the bidder has completed the Declaration of Interest and there are no conflicts of interest which may impact on the bidder's ability to perform the contract in the best interests of the employer or potentially compromise the bid process and persons in the employ of the state are not permitted to submit tenders; if there are no conflicts of interest which may impact on the bidder's ability to perform the contract in the best interests of the employer or potentially compromise the bid process g) the bidder has submitted the CIPRO documentation and certified copies of ID's for all directors: h) the bidder completed, signed and witnessed form of offer; the bidder is in good standing with Compensation for Occupational Injuries and Disease Act (COIDA); the bidder has submitted a fully priced Bill of Quantities; k) The bidder attended a compulsory briefing session and completed attendance register or certificate of attendance is signed by the representative of the Employer. The bidder is required to submit with his bid a Certificate of Contractor Registration issued by the Construction Industry Development Board and proof of Registration on the Central Supplier Database (CSD) with a Compliant Tax Status; copy of the tax clearance with Tax Compliance Pin issued by the South African Revenue Services. m) The bidder and all its directors are South African Citizens (For National Key Point Projects).

F.3.14	Notice to Unsuccessful Bidders
1.0.14	Should bidders not hear from the IDT within ninety (90) calendar days of closure, they should consider their submission unsuccessful. Award will be posted on e-tender and CIDB website within 21 days of award. No written notification directed to each bidder will be issued by the Employer to unsuccessful bidders.
F.3.18	Provide Copies of the Contract The number of paper copies of the signed contract to be provided by the employer is one.
	The additional conditions of bid are:
	1 The employer is not obliged to accept the lowest or any bid.

	ANNEXURE F: STANDARD CONDITIONS OF BID	
(As a	contained in ADDENDUM F of the CIDB Standard for Uniformity in Construction Procurement	')

T1.2

#### **Standard Conditions of Tender**

#### F.1 General

#### F.1.1 Actions

- **F.1.1.1** The employer and each tenderer submitting a tender offer shall comply with these conditions of tender. In their dealings with each other, they shall discharge their duties and obligations as set out in F.2 and F.3, timeously and with integrity, and behave equitably, honestly and transparently, comply with all legal obligations and not engage in anticompetitive practices.
- **F.1.1.2** The employer and the tenderer and all their agents and employees involved in the tender process shall avoid conflicts of interest and where a conflict of interest is perceived or known, declare any such conflict of interest, indicating the nature of such conflict. Tenderers shall declare any potential conflict of interest in their tender submissions. Employees, agents and advisors of the employer shall declare any conflict of interest to whoever is responsible for overseeing the procurement process at the start of any deliberations relating to the procurement process or as soon as they become aware of such conflict and abstain from any decisions where such conflict exists or recuse themselves from the procurement process, as appropriate.
- Note: 1) A conflict of interest may arise due to a conflict of roles which might provide an incentive for improper acts in some circumstances. A conflict of interest can create an appearance of impropriety that can undermine confidence in the ability of that person to act properly in his or her position even if no improper acts result.
  - 2) Conflicts of interest in respect of those engaged in the procurement process include direct, indirect or family interests in the tender or outcome of the procurement process and any personal bias, inclination, obligation, allegiance or loyalty which would in any way affect any decisions taken.
- **F.1.1.3** The employer shall not seek and a tenderer shall not submit a tender without having a firm intention and the capacity to proceed with the contract.

#### F.1.2 Tender Documents

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

#### F.1.3 Interpretation

- **F.1.3.1** The tender data and additional requirements contained in the tender schedules that are included in the returnable documents are deemed to be part of these conditions of tender.
- **F.1.3.2** These conditions of tender, the tender data and tender schedules which are only required for tender evaluation purposes, shall not form part of any contract arising from the invitation to tender.
- **F.1.3.3** For the purposes of these conditions for the calling for expressions of interest, the following definitions apply:
  - a) **Conflict of interest** means any situation in which:
    - i) someone in a position of trust has competing professional or personal interests which make it difficult to fulfil his or her duties impartially;
    - ii) an individual or organization is in a position to exploit a professional or official capacity in some way for their personal or corporate benefit; or
    - iii) Incompatibility or contradictory interests exist between an employee and the organisation which employes that employee.
- b) **Comparative offer** means the tenderer's financial offer after all tendered parameters that will affect the value of the financial offer have been taken into consideration in order to enable comparisons to be made between offers on a comparative basis
- c) **Corrupt practice** means the offering, giving, receiving or soliciting of anything of value to influence the action of the employer or his staff or agents in the tender process; and
- d) Fraudulent practice means the misrepresentation of the facts in order to influence the tender process or the award of a contract arising from a tender offer to the detriment of the employer, including collusive practices intended to establish prices at artificial levels

#### F.1.4 Communication and employer's agent

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

#### F.1.5 Cancellation and Re-Invitation of Tenders

- F.1.5.1 An employer may, prior to the award of the tender, cancel a tender if
  - a) due to changed circumstances, there is no longer a need for the engineering and construction works specified in the invitation:
  - b) funds are no longer available to cover the total envisaged expenditure; or
  - c) no acceptable tenders are received.
  - d) there is a material irregularity in the tender process.
- **F.1.5.2** The decision to cancel a tender invitation must be published in the same manner in which the original tender invitation was advertised.
- **F.1.5.3** An employer may only with the prior approval of the relevant treasury cancel a tender invitation for the second time.

#### F.1.6 Procurement procedures

#### F.1.6.1 General

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

#### F.1.6.2 Competitive negotiation procedure

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

#### F.1.6.3 Proposal procedure using the two stage-system (Not Applicable for this Bid)

#### F.1.6.3.1 Option 1

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

#### F.1.6.3.2 Option 2

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

#### F.2 Tenderer's obligations

#### F.2.1 Eligibility

- **F.2.1.1** Submit a tender offer only if the tenderer satisfies the criteria stated in the tender data and the tenderer, or any of his principals, is not under any restriction to do business with employer and/or the Register of Tender Defaulters in terms of the Prevention and Combating of Corrupt Activities Act of 2004 as a person prohibited from doing business with the public sector;
- **F.2.1.2** Notify the employer of any proposed material change in the capabilities or formation of the bidding entity (or both) or any other criteria which formed part of the qualifying requirements used by the employer as the basis in a prior process to invite the tenderer to submit a tender offer and obtain the employer's written approval to do so prior to the closing time for tenders.

#### F.2.2 Cost of tendering

#### F.2.2.1

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

#### F.2.2.2

The cost of the tender documents charged by the employer shall be limited to the actual cost incurred by the employer for printing the documents. Employers must attempt to make available the tender documents on its website so as not to incur any costs pertaining to the printing of the tender documents.

#### F.2.3 Check documents

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

#### F.2.4 Confidentiality and copyright of documents

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

#### F.2.5 Reference documents

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

#### F.2.6 Acknowledge addenda

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

#### F.2.7 Clarification meeting

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

#### F.2.8 Seek clarification

Request clarification of the tender documents, if necessary, by notifying the employer at least five working days before the closing time stated in the tender data. The tenderer is encouraged to go through all contents of the tender document as seek clarification where applicable. Any assumptions made by the bidder without prior confirmation by the Employer and his agent shall be at the tenderers own risk.

#### F.2.9 Insurance

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

#### F.2.10 Pricing the tender offer

- **F.2.10.1** Include in the rates, prices, and the tendered total of the prices (if any) all duties, taxes (except Value Added Tax (VAT), and other levies payable by the successful tenderer, such duties, taxes and levies being those applicable 14 days before the closing time stated in the tender data.
- F2.10.2 Show VAT payable by the employer separately as an addition to the tendered total of the prices.
- **F.2.10.3** Provide rates and prices that are fixed for the duration of the contract and not subject to adjustment except as provided for in the conditions of contract identified in the contract data.
- **F.2.10.4** State the rates and prices in Rand unless instructed otherwise in the tender data. The conditions of contract identified in the contract data may provide for part payment in other currencies.

#### F.2.11 Alterations to documents

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

#### F.2.12 Alternative tender offers

- **F.2.12.1** Unless otherwise stated in the tender data, submit alternative tender offers only if a main tender offer, strictly in accordance with all the requirements of the tender documents, is also submitted as well as a schedule that compares the requirements of the tender documents with the alternative requirements that are proposed.
- **F.2.12.2** Accept that an alternative tender offer may be based only on the criteria stated in the tender data or criteria otherwise acceptable to the employer.
- F.2.12.3 An alternative tender offer must only be considered if the main tender offer is the winning

#### F.2.13 Submitting a bid offer

- **F.2.13.1** Submit one bid offer only, either as a single bidding entity or as a member in a joint venture to provide the whole of the works, services or supply identified in the contract data and described in the scope of works, unless stated otherwise in the tender data.
- **F.2.13.2** Return all returnable documents to the employer after completing them in their entirety, either electronically (if they were issued in electronic format) or by writing in black ink.
- **F.2.13.3** Submit the parts of the tender offer communicated on paper as an original plus the number of copies stated in the tender data, with an English translation of any documentation in a language other than English, and the parts communicated electronically in the same format as they were issued by the employer.
- **F.2.13.4** Sign the original and all copies of the tender offer where required in terms of the tender data. The employer will hold all authorized signatories liable on behalf of the tenderer. Signatories for tenderers proposing to contract as joint ventures shall state which of the signatories is the lead partner whom the employer shall hold liable for the purpose of the tender offer.
- F.2.13.5 Seal the original and each copy of the tender offer as separate packages marking the packages as "ORIGINAL" and "COPY". Each package shall state on the outside the employer's address and

Tender Part T1.2: Bid Data DOE14NWER015A identification details stated in the tender data, as well as the tenderer's name and contact address.

- **F.2.13.6** Where a two-envelope system is required in terms of the tender data, place and seal the returnable documents listed in the tender data in an envelope marked "financial proposal" and place the remaining returnable documents in an envelope marked "technical proposal". Each envelope shall state on the outside the employer's address and identification details stated in the tender data, as well as the tenderer's name and contact address.
- **F.2.13.7** Seal the original tender offer and copy packages together in an outer package that states on the outside only the employer's address and identification details as stated in the tender data.
- **F.2.13.8** Accept that the employer shall not assume any responsibility for the misplacement or premature opening of the tender offer if the outer package is not sealed and marked as stated.
- **F.2.13.9** Accept that tender offers submitted by facsimile or e-mail will be rejected by the employer, unless stated otherwise in the tender data.

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

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

Ensure that the employer receives the tender offer at the address specified in the tender data not later than the closing time stated in the tender data. Accept that proof of posting shall not be accepted as proof delivery.

#### F.2.15 Closing time

- **F.2.15.1** Ensure that the employer receives the tender offer at the address specified in the tender data not later than the closing time stated in the tender data. Accept that proof of posting shall not be accepted as proof of delivery.
- **F.2.15.2** Accept that, if the employer extends the closing time stated in the tender data for any reason, the requirements of these conditions of tender apply equally to the extended deadline

#### F.2.16 Tender offer validity

- **F.2.16.1** Hold the tender offer(s) valid for acceptance by the employer at any time during the validity period stated in the tender data after the closing time stated in the tender data.
- **F.2.16.2** If requested by the employer, consider extending the validity period stated in the tender data for an agreed additional period with or without any conditions attached to such extension.
- **F.2.16.3** Accept that a tender submission that has been submitted to the employer may only be withdrawn or substituted by giving the employer's agent written notice before the closing time for tenders that a tender is to be withdrawn or substituted.
- **F.2.16.4** Where a tender submission is to be substituted, submit a substitute tender in accordance with the requirements of F.2.13 with the packages clearly marked as "SUBSTITUTE".

#### F.2.17 Clarification of tender offer after submission

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

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

#### F.2.18 Provide other material

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

offer as non-responsive.

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

F.2.18.3

#### F.2.19 Inspections, tests and analysis

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

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

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

#### F.2.21 Check final draft

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

#### F.2.22 Return of other tender documents

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

#### F.2.23 Certificates

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

#### F.3 The employer's undertakings

#### F.3.1 Respond to requests from the tenderer

- **F.3.1.1** Unless otherwise stated in the tender Data, respond to a request for clarification received up to five working days before the tender closing time stated in the Tender Data and notify all tenderers who drewprocurement documents.
- **F.3.1.2** Consider any request to make a material change in the capabilities or formation of the bidding entity (or both) or any other criteria which formed part of the qualifying requirements used to prequalify a tenderer to submit a tender offer in terms of a previous procurement process and deny any such request if as a consequence:
  - a) an individual firm, or a joint venture as a whole, or any individual member of the joint venture fails to meet any of the collective or individual qualifying requirements;
  - b) the new partners to a joint venture were not prequalified in the first instance, either as individual firms or as another joint venture; or
  - in the opinion of the Employer, acceptance of the material change would compromise the outcome of the prequalification process.

#### F.3.2 Issue Addenda

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

#### F.3.3 Return late tender offers

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

#### F.3.4 Opening of tender submissions

- **F.3.4.1** Unless the two-envelope system is to be followed, open valid tender submissions by the IDT's SCM Unit. Tender submissions for which acceptable reasons for withdrawal have been submitted will not be opened publicly.
- **F.3.4.2** Announce at the meeting held immediately after the opening of tender submissions the name of each tenderer whose tender offer is opened and, where applicable, the total of his prices for the main tender offer only.
- **F.3.4.3** Make available the record outlined in F.3.4.2 on the IDT's website.

#### F.3.5 Two-envelope system (Not Applicable for this bid)

- **F.3.5.1** Where stated in the tender data that a two-envelope system is to be followed, open only the technical proposal of valid tenders in the presence of tenderers' agents who choose to attend at the time and place stated in the tender data and announce the name of each tenderer whose technical proposal is opened.
- **F.3.5.2** Evaluate the quality of the technical proposals offered by tenderers, then advise tenderers who remain in contention for the award of the contract of the time and place when the financial proposals will be opened. Open only the financial proposals of tenderers, who score in the quality evaluation more than the minimum number of points for quality stated in the tender data, and announce the score obtained for the technical proposals and the total price and any preferences claimed. Return unopened financial proposals to tenderers whose technical proposals failed to achieve the minimum number of points for quality.

#### F.3.6 Non-disclosure

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

#### F.3.7 Grounds for rejection and disqualification

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

#### F.3.8 Test for responsiveness

- **F.3.8.1** Determine, after opening and before detailed evaluation, whether each tender offer properly received:
  - a) complies with the requirements of these Conditions of Tender,
  - b) has been properly and fully completed and signed, and
  - c) is responsive to the other requirements of the tender documents.
- **F.3.8.2** A responsive tender is one that conforms to all the terms, conditions, and specifications of the tender documents without material deviation or qualification. A material deviation or qualification is one which, in the Employer's opinion, would:
  - a) detrimentally affect the scope, quality, or performance of the works, services or supply identified in the Scope of Work,
  - b) significantly change the Employer's or the tenderer's risks and responsibilities under the contract, or
  - affect the competitive position of other tenderers presenting responsive tenders, if it were to be rectified.

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

#### F.3.9 Arithmetical errors, omissions and discrepancies

- **F.3.9.1** Check responsive tenders for discrepancies between amounts in words and amounts in figures. Where there is a discrepancy between the amounts in figures and the amount in words, the amount in words shall govern.
- **F.3.9.2** Check the highest ranked tender or tenderer with the highest number of tender evaluation points after the evaluation of tender offers in accordance with F.3.11 for:
  - a) the gross misplacement of the decimal point in any unit rate;
  - b) omissions made in completing the pricing schedule or bills of quantities; or

- c) arithmetic errors in:
  - line item totals resulting from the product of a unit rate and a quantity in bills of quantities or schedules of prices; or
  - the summation of the prices.
- F.3.9.3 Notify the tenderer of all errors or omissions that are identified in the tender offer and either confirm the tender offer as tendered or accept the corrected total of prices.

#### F.3.9.4

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

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

#### F.3.10 Clarification of a tender offer

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

#### F.3.11 Evaluation of tender offers

The Standard Conditions of Tender standardize the procurement processes, methods and procedures from the time that tenders are invited to the time that a contract is awarded. They are generic in nature and are made project specific through choices that are made in developing the Tender Data associated with a specific project.

Conditions of tender are by definition the document that establishes a tenderer's obligations in submitting a tender and the employer's undertakings in soliciting and evaluating tender offers. Such conditions establish the rules from the time a tender is advertised to the time that a contract is awarded and require employers to conduct the process of offer and acceptance in terms of a set of standard procedure

The CIDB Standard Conditions of Tender are based on a procurement system that satisfies the following system requirements:

Requirement Qualitative interpretation of goal Fair The process of offer and acceptance is conducted impartially without bias, providing simultaneous and timely access to participating parties to the same information. Equitable Terms and conditions for performing the work do not unfairly prejudice the interests of the parties. Transparent The only grounds for not awarding a contract to a tenderer who satisfies all requirements are restrictions from doing business with the employer, lack of capability or capacity, legal impediments and conflicts of interest. The system provides for appropriate levels of competition to Competitive ensure cost effective and best value outcomes.

The activities associated with evaluating tender offers are as follows:

- a) Open and record tender offers received
- b) Determine whether or not tender offers are complete
- c) Determine whether or not tender offers are responsive
- d) Evaluate tender offers
- e) Determine if there are any grounds for disqualification
- f) Determine acceptability of preferred tenderer
- g) Prepare a tender evaluation report
- h) Confirm the recommendation contained in the tender evaluation report

#### F3.11.1 General

The employer must appoint an evaluation panel of not less than three persons conversant with the proposed scope of works to evaluate each responsive tender offer using the tender evaluation methods and associated evaluation criteria and weightings that are specified in the tender data

#### F.3.12 Insurance provided by the employer

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

#### F.3.13 Acceptance of tender offer

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

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

#### F.3.14 Prepare contract documents

- **F.3.14.1** If necessary, revise documents that shall form part of the contract and that were issued by the employer as part of the tender documents to take account of:
  - a) addenda issued during the tender period,
  - b) inclusion of some of the returnable documents, and
  - c) other revisions agreed between the employer and the successful tenderer.
- **F.3.14.2** Complete the schedule of deviations attached to the form of offer and acceptance, if any.

#### F.3.15 Complete adjudicator's contract

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

#### F.3.16 Registration of the award

An employer must, within twenty-one (21) working days from the date on which a contractor's offer to perform a construction works contract is accepted in writing by the employer, register and publish the award on the CIDB Register of Projects.

#### F.3.17 Provide copies of the contracts

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

#### F.3.18 Provide written reasons for actions taken

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

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#### SPECIAL CONDITIONS OF TENDER

#### F.4 Special Conditions of Tender

#### F.4.1 General

The Special Conditions of Principal Contract Tender generally contain clauses that are either deemed to be additions, elaborations or variations to the Standard Conditions of Principal Contract Tender. Accordingly, the Special Conditions of Principal Contract Tender be read in conjunction with the Standard Conditions of Principal Contract Tender and it shall be deemed that the amended meanings and intentions of the clauses shall apply, if applicable.

#### F.4.2 Tender Offers

Tenderers are advised that it is compulsory to submit offers for all Tender Options as set - out below and where indicated by a tick.

#### **Subject To Escalation Price Offer**

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N/A

Tenderers are advised that this offer shall is <u>be subject to Contract Price Adjustment Formulae</u> <u>basedon the Haylett Formulae</u>.

Fixed Price Offer

Tenderers are advised that all rates, amounts, overhead and profit percentage mark-ups and amounts, profit and attendance amounts, prices, etc. submitted, shall <u>not be subject to any form of Contract Price Adjustment Formulae e.g. Haylett Formulae.</u> In this regard, it is deemed that the Tenderer has allowed for any potential increases (except any variation in the rate of Value Added Tax) in cost of labour, materials, transport, etc. in the Tender amounts, rates, etc. submitted.

This will only be applicable to the measured work priced by the main contractor and will not apply to the provisional sums or budgetary allowances.

Key: √ - Tender Option Applicable X - Not Required For This Tender

#### F.4.3 Market Related Wage Rates

When pricing this document, respondents are to allow for wages, which are not less than the greater of:

The statutory wage rates in any labour category; and,

The SAFCEC recommended minimum rates applicable at any time during the duration of the contract.

In this regard, a Tenderer may be called upon to demonstrate the wage rates utilized in calculating its Tender price.

#### F.4.4 Letter of Intent

Tenderers are required to furnish with their tender documents, a letter of intent from a Bank or approved Insurance Company, to indicate that in the event of their tender being successful that a surety / guarantee as required will be provided when asked to do so.

#### F.4.5 Information to be Submitted by Tenderers

All Tenderers are instructed to acknowledge that the information to be submitted must be strictly in accordance with the requirements stipulated in 2.3. Therefore, separate brochures, information other than which is specified in 2.3 must not be incorporated in the submission documents. Failure to comply with this instruction may render the submission liable for disqualification.

Tender Part T1.2: Bid Data DOE14NWER015A If the spaces in the Tender Returnables are insufficient, the relevant particulars should be documented on a separate sheet (s) with proper reference to the specific information requested.

#### F.4.6 Interviews

All Tenderers are advised that they may be required to attend interviews and / or submit further information; including making their premises, plant, equipment and details of works in progress, available for inspection after the receipt of Tender submissions.

#### F.4.7 Detailed Construction Programme

The Principal Contract for the project Commencement and Completion dates and any other relevant dates for this contract are stated in the Preliminaries.

Time and quality are to be considered the essence of this Contract. Accordingly, it shall be deemed that the Project Programme detailing each activity and duration as well as a detailed Method Statement be submitted by the Tenderer as part of the Tender submission and shall be the basis of monitoring progress on the project.

The programme should be a detailed double-linked critical path programme preferably in CCS format in both hard copy and electronic format and take into consideration the following;

Dividing the programme into convenient construction zones both horizontally and vertically; Linking all activities as 'open ended' or 'open start' activities are not acceptable; Detailing all holidays, Christmas/New Year break, etc.;

Showing both the Date of Practical Completion and the Date of Works Completion given that the Employer will take Occupation of the facility once the Works Completion Certificate has been issued. Penalties will apply for Milestone, Practical and Works Completion dates not being achieved as detailed in the Preliminaries.

The programme must be a fully resourced "double linked" critical path programme clearly showing Start, Finish and any Interim completion dates as well as any Milestone dates for critical activities including;

- Dates for Practical Completion Inspections to be carried out;
- Date of Practical Completion
- Period required for attendance on and completion of the Completion List issued at PracticalCompletion
- Date of Works Completion;

The successful tenderer's program is subject to review and mutual acceptance.

Any Queries / clarifications relative to the Programme can be directed to the Employer.

#### F.4.8 Detailed Cash-flow

Tenderers are advised that a fully detailed cash-flow based on the tenderers programme is required to be submitted together with their tender document. In this regard, tenderers are advised that the financial year start and end dates are 01 April to 31 March respectively and therefore tenderers are requested to keep sub-totals for each financial year during the duration of the construction programme.

Tenders are advised that the targeted annual maximum percentages per financial year end for the contract duration are as follows and are not to be exceeded:

FINANCIAL YEAR
01 APRIL 2024 TO 31 MARCH 2025
01 APRIL 2025 TO 31 MARCH 2026
01 APRIL 2026 TO 31 MARCH 2027

#### F.4.9 Detailed Resourcing Schedule

Tenderers are advised that a detailed resourcing schedule including skilled, unskilled and sub-contractor's staffing histograms is required to be submitted together with their tender document.

#### F.4.10 Proposed Domestic Sub-Contracts

The Tenderer shall submit in writing, when requested, a list of proposed domestic sub-contractors that is intended to be utilized on the project, should its offer be accepted.

Proposed domestic sub-contractors shall take part in the work set aside for 25% Local Participation if possible

#### F.4.11 Adjudication and Independent Development Trust's Rights

- F.4.11.1 Independent Development Trust reserves the right to visit any Tenderer (without prior notice), to interview any shareholder of the Tenderer and to evaluate such Tenderer in accordance with the criteria as set out in the paragraph 1.11.3 below;
- F.4.11.2 All information obtained at such evaluation shall at all times be treated as confidential by Independent Development Trust;
- F.4.11.3 Adjudication of a Tender shall be in the discretion of Independent Development Trust and may take into account the following:
  - (i) Tender Price;
  - (ii) Ability to perform, which may take into account previous experience in the relevant industry;
  - (iii) Suitability of employees and suitability of equipment and materials to be used;
  - (iv) Black dep Empowerment;
  - (v) Financial viability of the Tenderer;
  - (vi) Ownership of the Tenderer;
  - (vii) Compliance with all relevant laws; and
  - (viii) SCM policy and procedures.

#### F.4.12 Form of Contract

The JBCC Series 2000 Principal Building Agreement (Edition 6.2 Reprint May 2018) as amended in the IDT's SPECIAL CONDITIONS OF PRINCIPAL CONTRACT, shall be applicable to this contract.

#### F.4.13 Specialist Selected Sub-contract Procurement Process

Due to the nature of the project, the procurement process of the following envisaged selected subcontracts will be done upon appointment of the Principal Building Contractor:

- Clearing of site
- Excavation of footings and pipe trenches
- Painting
- Brickwork

Upon the appointment of a Principal Contractor, the Principal Contractor is to subsequently appoint the **selected** sub-contractors as instructed by the Principal Agent and The Employer.

This is a material condition of appointment and should the Tenderer have any objection to this condition the tenderer is to raise this in their tender submission. The appointment of the selected sub-contractor will be done in consultation with the appointed contractor.

#### F.4.14 Damage to the Work

Care shall be taken not to cause any damage to any part of the existing or new work or any adjoining property, if applicable. The Contractor will be held responsible for damage caused to the works by his negligence and shall be liable for all costs incurred in making good any such damage to the satisfaction of the Principal Agent.

#### F.4.15 Communication, Media Releases, Etc.

The Contractor shall not in any way communicate with the press, or any representative of the written or electronic media, on a question affecting this contract unless prior approval in writing is received from the **Principal Agent** as authorized by the **Employer**.

All rights of publication of articles in the media, together with any advertising relating to, or in any way concerned with this project shall vest in the Employer.

The Contractor shall not, without the written consent of the Employer, cause any statement or advertisement to be printed, screened or aired by the media.

#### F.4.16 Copyright

No part of this document and any document forming part of the contract documents may be copied, photographed or repeated in any manner or by any process without the written consent of the **Principal Agent**. Copyright is reserved on all designs, specifications, patents and patentable designs, systems and processes contained in documents pertaining to this contract. The person, firm, body, supplier, contractor, sub-contractor and any other contracting party is to be responsible jointly and severally, in their personal and corporate capacities for any contravention of this requirement.

#### F.4.17 Workmanship and Quality Control

The onus to produce work that conforms in quality and accuracy of detail, to the requirements of the specifications, rests with the Contractor, and the Contractor shall, at his own expense, institute a quality control system and provide other technical staff, together with all transport, instruments and equipment to ensure adequate supervision and positive control of the works at all times.

The cost of supervision and process control, including testing carried out by the Contractor shall be deemed to be included in the amount quoted for the works.

The Contractor's attention is drawn to the normal standards regarding the minimum frequency of testing required for materials. The Contractor shall, at his own discretion increase this frequency where necessary to ensure adequate control.

The Contractor shall remain solely responsible for the work as defined in this contract document, up to the end of the Defects Liability Period.

The Contractor needs to ensure that daily site diaries are kept on site at all times. These may be required for submission to the Employer as and when needed.

The end-user client and the NDPW may from time to time inspect the quality / workmanship on site and make the necessary comments and/or requirements for correction.

#### F.4.18 Occupational Health and Safety Act

The Contractor shall comply with the requirements set out in the Construction Regulations, 2014 issued under the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993)

#### F.4.19 Co-Operation of Contractor for Cost Control

It is deemed that the Contractor accepts the obligation of assisting the Professional Consultants in implementing proper cost control in ensuring that the final building cost does not exceed the budget.

#### F.4.20 Application for Payment

The Contractor shall submit the following information on a monthly basis to the Quantity Surveyor in order to assist with the processing of the Payment Certificate and the preparation of the empowerment report:

· A detailed breakdown of the work done. (The work breakdown must be referenced strictly in

accordance with the Contract Document or the detailed priced bills of quantities, as applicable.)

- A detailed breakdown of all Variation Order costs claimed (With specific reference to work done by the Nominated/Selected Subcontractor) in the certificate concerned, together with copies of the relevant Contract instructions.
- An empowerment report which shall contain an affidavit certifying that all information contained in the report as being true and correct and must be authenticated by the sub-contractor and a commissioner of oaths
- EPWP Labour Report showing total work opportunities created on site
- Tax Invoice: The contractor shall attach a tax invoice as prescribed in the Value Added Tax legislation to each payment certificate when presenting the certificate to the Employer for payment. Such tax invoices shall correctly reflect the prescribed information and the amounts shall match precisely the amounts included in the Payment Certificate. Should the contractor fail to comply with these requirements, the date of presentation of the certificate shall be deemed to be delayed at the contractor's default until such time as the requirements are met.

Should anyone or any combination of the above requirements not be complied with, the Principal Agent and/or Contractor reserves the right to exclude any amounts that may have been due for certification from the Payment Certificate concerned and/or delay the issue of Payment Certificates and/or, revise the contractual payment date, as applicable, until such time compliance is achieved.

#### F.4.21 Identification of Personnel

All permanent staff that are utilised on the project by the Contractor, Domestic and Selected Subcontractors are at all times whilst on site, be clad with clothing that clearly identifies each staff member together with an identification document which includes, but not limited to the following:

A photograph of the staff member concerned;

The identification numbers of the staff member concerned; and,

The name of company concerned

In addition, to that stated above, the Contractor shall adhere to the premise's security rules and regulations.

No staff member will be permitted to execute the Works if this condition is not adhered to.

#### F.4.22 Intervention at Manufacture and / or Supplier and / or Contract Level

The Employer and its Agents reserve the right to discuss and liaise on any issue pertaining to this Contract with the Contractor's service providers i.e. manufacturers and / or suppliers and / or subcontractors concerned. This right shall not create privity of contract between the Employer and / or its Agents and the said manufacturer and / or supplier and / or sub-contractors.

#### F.4.23 Cession of Materials Supplied to the Site

It shall be deemed that the Contractor and its service providers upon delivery of each batch of materials to site, has ceded the said materials to the Employer.

#### F.4.24 Alterations in the Quantity and Value of Work

The Employer and / or its Agents shall be permitted to either increase or decrease the quantity and value of work contracted for. In this regard, the Contractor including its service providers shall not be entitled to claim for any additional expense incurred, or for any change in the rates for work done and / or any materials and services supplied. It shall be deemed that all costs associated with this item are included in the Tender Price.

## F.4.25 Change in the Scope of Work

The Contractor acknowledges that whilst drawings have been prepared for the Works, the scope of work and value of the Contract may be substantially altered and that no claims for loss and expense shall be due by the Employer for implementing any changes that may become necessary. It shall be deemed that the Tender Price includes for all costs that may arise due to compliance with this clause.

Tender Part T1.2: Bid Data DOE14NWER015A

#### F.4.26 Treasures, Relics, Etc.

Any relics, treasure, articles of value or of potential historical or archaeological interest found on the site must be brought to the attention of the Principal Agent. All work at the specific area of the discovery shall stop for a reasonable time period until such time that the Principal Agent instructs continuation of the Works.

Any relics, treasure, articles of value or of potential historical or archaeological interest found on the site shall remain the property of the Employer and shall be handed over to the Principal Agent who shall be the sole arbitrator of what is an article of value.

#### F.4.27 Priced Bills of Quantities

The Tenderer shall submit a fully priced Bills of Quantities as well as a detailed breakdown and build-up of all items measured as lump sum items with the Tender Price. Lump sum items shall be measured in accordance with the Standard System of Measuring Building Work (Seventh Edition, including any subsequent amendments thereto), and shall form part of the Contract and shall be used for the purposes of preparing valuations, Payment Certificates, determining the value of Variation Orders, preparation of Final Accounts, etc.

Neither the Employer, not its Agents shall be liable for any cost incurred for the award and subsequent withdrawal of the award of the Tender in terms of this clause.

#### F.4.28 Prices and Net Measurements

Prices throughout these Bills of Quantities shall be deemed to include for all obligations arising out of the Contract and unless otherwise specified, be held to include for making, conveying and delivering, unloading, storing, unpacking, hoisting, setting, fitting and fixing in position, cutting and waste, patterns, models and templates, plant, temporary works and return of packaging.

Prices for all items contained in these Bills of Quantities and any additional authorized variations, shall be deemed to exclude all amounts due in terms of the Value Added Taxation legislation. A provision for the addition of VAT shall be made on the Final Summary page of the Bills of Quantities and Final Statement of Accounts, as applicable.

#### F.4.29 Value Added Tax (V.A.T)

All prices and or rates tendered shall be deemed to be **exclusive** of Value Added Tax.

Value Added Tax shall be added as a lump sum where provided on the Final Summary page of the Bills of Quantities, and the Tender Price **inclusive** of Value Added Tax will be shown on the Form of Tender.

Value Added Tax shall be calculated at the National going rate at the time of submission of bids.

#### F.4.30 Site and Information

Tenderers must acquaint themselves with the conditions of the Site and generally obtain their own information on all matters affecting the submission of Tenders for the Works. Tenderers will be held responsible for any misunderstanding or incorrect information obtained, except information which may have been given in writing over the signature of the Principal Agent.

The contractor is expected to establish a construction camp, office and workshop facility, for the fulfilment of the contract. Site establishment facilities to be removed after the completion of the project.

The contractor must strictly use the working area provided by the Employer.

#### F.4.31 Noise

Tenderers must take note that the site is a live site where academic activities will continue. As such high noise level shall be restricted to times that will not disrupt the community. Tenderers are to ensure that they acquaint themselves with these conditions and adequately price for it accordingly as no additional time will be allowed for any delays that may be attributed to such.

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The Contractor will be restricted from working evening shifts but may be allowed to work weekend shifts with prior 1 week's notice. Such shall be included in the contractor's pricing as no additional allowance for weekend shifts will be allowed for by the Employer, post tender award.

#### F.4.32 Water and Electricity

The contractor is expected to make means for the provision of water and electricity for construction purposes. The use of such services from the site shall be at the discretion and on agreement with the end user department.

#### F.4.33 Preliminaries Costs

The Tenderer must allow in his pricing, or where provided for in the Tender Document, for all preliminaries costs deemed necessary for the proper execution and completion of the Works, as no late claims whatsoever for additional costs in this respect will be considered.

#### F.4.34 Protection of Existing Work

The Tenderer shall allow for the protection of all existing work that is liable to be damaged during the execution of this Contract and work that is liable to be damaged once the Contractor completes its Section of the Works.

#### F.4.35 Mock-Up / Samples, etc.

Samples, mock-ups, etc. will be called for by the Principal Agent for approval and shall be provided at no extra cost as rates will be deemed to include for this.

#### F.4.36 Substitution of Materials

No substitution of the articles or materials specified in this Tender Document will be permitted unless the authority of the Principal Agent has been obtained, in writing, before Tender closing. The Tenderer will otherwise be required to provide / or use the specified articles or materials. Approval of any request for the substitution of any article or materials will only be considered when the Principal Agent is satisfied that if the substitution is approved, there is sufficient time remaining before Tender closing to advise all other Tenderers accordingly.

#### F.4.37 Restriction on Site Access

Tenderers are to price any items related to this under Clause 3.1 in the Preliminaries bill. The Principal Agent and /or the Compulsory Tender Briefing will provide further details of the restrictions, if any that will affect the Contractor.

#### F.4.38 Security

The Tenderers are to note that upon award of the contract, they are to furnish the Employer (within 21 days of award), the following:

Construction Guarantee equal in value to 10% of the Contract Sum valid for the duration of the contract.

#### F.4.39 Safety Requirements

The Contractor is referred to the safety requirements associated with the project. It is of utmost importance that the successful contracting entity abides by the.

The Contractor will comply with all Health and Safety Regulations and the Health and Safety Plan.

Management of safety on site shall remain the sole responsibility of the Contractor.

Disposal of all rubble material and asbestos roof sheeting / materials, to suitable legal dump sites, shall be carried out on a weekly basis. All costs for this exercise shall be included in the bid price (for the duration of the project plus a further 6 months in the event of project overrunning its duration)

The safety on site, agreement and general information forms included in the Tender Returnables must be agreed and fully completed and submitted with the Tender Submission.

#### F.4.40 Budgetary Allowances / Provisional Sums

Where applicable, these amounts have been included in the Tender Price where the work has not been defined at the date of Tender. It is intended that once the scope is defined, Tenders will be invited with a view to these Works being awarded as Nominated / Selected Subcontract works.

- The Specialist Consultant responsible for the specific work package will prepare documentation
  which is to include drawings, specification and schedule of quantities that define the scope of works
  all in accordance with the Nominated / Selected Subcontract Agreement.
- The Quantity Surveyor will prepare the necessary Tender documents.
- The Principal Agent will arrange for inviting / advertising of tenders subject to the payment of a non-refundable document fee, if applicable.
- The Employer will arrange to issue the tender documents from their offices and take receipt of amounts paid.
- The Tenders for the Works will be submitted to the Employer's office in terms of the tender closing times stipulated. Tenders will be opened and tender amounts read out at the time.
- The Quantity Surveyor will make copies of the returned Tender documents for distribution to the Principal Agent.
- The Quantity Surveyor will prepare an initial financial evaluation report of the Tenders, Principal Agent and Engineer will evaluate the Tenderer's technical compliance and capability and circulate to the Employer.
- The Principal Agent will prepare a draft report, discuss with the Contractor to get their approval and finally circulate the draft to the other Consultants for final comment. Thereafter the Tender Report with Recommendations will be finalized by the Principal Agent and circulated to the Employer for approval. On approval, the recommendation together with any instructions of award will be issued to the Contractor who will be responsible for appointing the relevant party as a Subcontractor.

#### F.4.41 Community Liaison Officer (CLO)

The Tenderer shall allow for a CLO who is to be appointed and remunerated by the Contractor following identification and selection by the Ward Councillor.

Purpose of the Job: The primary role of the CLO shall be liaison and facilitation of communication

between the Contractor, the Local community and the Ward Councilor.

Job title: Community Liaison Officer (CLO)

Reporting to: The Contracts Manager or other delegated representative of the Contractor. The

CLO must report to the Contractor and remain on site on a daily.

Experience: Relevant experience and knowledge of building construction, community

facilitation and relevant labour legislation.

Remuneration: Rate payable for the CLO will be 100% of the Building Works Industry minimum

wage for unskilled labour.

Minimum Skills: 1. Ability to work with others;

- 2. Ability to communicate in local language of the project location and English;
- 3. Ability to communicate in writing;
- 4. Sound Interpretation skill.

The Ward Councillor in whose wards work is to be done will collectively identify 3 (three) CLO candidates for the project and make such persons known to the Contractor within five days of being requested to do so. The Contractor will be required to enter a written contract with the CLO that specifies:

- (a) The hours of work and the wage rate of the CLO which could include:
- (b) The duration of the appointment
- (c) The duties to be undertaken by the CLO which could include:
- Assisting in all respects relating to the recruitment of local labour and advising them of their rights
- Acting as a source of information for the community and councilors on issues related to the contract
- Keeping the contractor advised on community issues and issues pertaining to local security
- Assisting in setting up any meeting or negotiations with affected parties
- Keeping a written record of any labour or community issues that may arise

- The CLO needs to be seen to be neutral by all parties and therefore should endeavour not to take sides should conflict arise.
- Should the CLO function not involve a full days work, the CLO will be expected to undertake other work allocated by the Contractor for the balance of each day

#### Procedures for local labour recruitment:

- The Contractor submits a list of his/her requirements to the CLO, stating the numbers required in each labour category (general worker, bricklayer, etc.) and a programme that shows when these resources will be required.
- During the construction period, the CLO uses the list to identify candidates for employment, who are interviewed and if successful employed by the contractor.
- The Contractor keeps the CLO informed by providing him/her with employee's details at the start of their employment (name, residential address, ID number, wage, employment, start and finish date, task, etc.) and notify the CLO when their employment ends.

**T2.1 LIST OF RETURNABLE DOCUMENTS** 

# **T2.1 List of Returnable Documents**

List of returnable documents are for ensuring that everything the employer requires a tenderer to submit with his tender is included in, or returned with, his tender submission. Tick below if returnable document is attached or completed properly.

#	LIST OF RETURNABLE DOCUMENTS	TICK IF ATTACHED
T2.1.1	Invitation to bid (SBD1)	
T2.1.2	Preference Points Claim Form in Terms of The Preferential Procurement Regulations 2022 (SBD 6.1)	
T2.1.3	Tax clearance certificate	
T2.1.4	Joint Venture Agreement Between Parties	
T2.1.5	Contractors copy of CIPC registration	
T2.1.6	CIDB Registration Number	
T2.1.7	Copy of a Letter of Good standing with Compensation For OccupationalAnd Injuries Diseases Act (COIDA) Registration Number	
T2.1.8	Compulsory enterprise questionnaire	
T2.1.9	Bidder's disclosure	
T2.1.10	Certificate of Authority For Signatory	
T2.1.11	Record of Addenda to The Tender Documents	
T2.1.12	Tenderers financial standing	
T2.1.13	Amendments, Qualifications and Alternatives	
T2.1.14	Socio economic upliftment strategy	
T2.1.15	Contractors health and safety declaration	

**T2.2 RETURNABLE SCHEDULES (ALL COMPULSORY)** 

# **T2.2 RETURNABLE SCHEDULES**

Contains documents that the tenderer is required to complete for the purpose of evaluating tenders and other schedules which upon acceptance become part of the subsequent contract.

#	QUALITY EVALUATION SCHEDULES
T2.2.1	Safety health environmental and quality management system (SHEQ) plan
T2.2.2	Project Experience
T2.2.3	Letters of Appointment, and Relevant Completion Certificates (Practical Completion, Work Completion & Final Completion)
T2.2.4	Client references
T2.2.5	Key Personnel
T2.2.6	Financial Viability

# RETURNABLE SCHEDULES THAT WILL BE INCORPORATED INTO THE CONTRACT (to be attached with submission)

Record of Addenda to Tender Documents
Declaration Concerning Fulfillment of the Construction Regulations, 2003
First Programme and Method Statement
Preliminary Health and Safety Plan for completion
Form of offer and acceptance
Contract data
Forms of securities

SBD 1

# **PART A**

# **INVITATION TO BID**

YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF THE (NAME OF DEPARTMENT/ PUBLIC ENTITY)							
BID NUMBER:	DOE1	4NWER015A	CLOSING DAT	E:	25 April 2024	CLOSING TIME:	12h00
DESCRIPTION	CONS'	TRUCTION OF NEW H RTMENT OF EDUCAT	IOSTELS FOR N ION, NORTH WI	IOEDWIL CO EST PROVINC	EMOLITION OF ASE MBINED SCHOOL IN B CE.BID NUMBER: DOE	OJANALA DIS	STRICT FOR THE
BID RESPONSE DOCUME	ENTS MA	AY BE DEPOSITED IN	THE BID BOX S	TUATED AT	(STREET ADDRESS)		
IDT North West Regional							
4071 Joules Street, Indus	trial Site	<b>e</b>					
Mahikeng							
2735							
BIDDING PROCEDURE EI	NQUIRIE	ES MAY BE DIRECTED	ТО	TECHNICAL	ENQUIRIES MAY BE D	IRECTED TO:	
CONTACT PERSON				CONTACT F	PERSON		
TELEPHONE NUMBER				TELEPHONI	E NUMBER		
FACSIMILE NUMBER				FACSIMILE	NUMBER		
E-MAIL ADDRESS		WisdomN@idt.org.za		E-MAIL ADD	RESS	Linnet	M@idt.org.za
SUPPLIER INFORMATION	I						
NAME OF BIDDER							
POSTAL ADDRESS							
STREET ADDRESS			T		T	T	
TELEPHONE NUMBER		CODE			NUMBER		
CELLPHONE NUMBER			1		T	T	
FACSIMILE NUMBER		CODE			NUMBER		
E-MAIL ADDRESS							
VAT REGISTRATION NUM	/IBER		_				
SUPPLIER COMPLIANCE STATUS		TAX COMPLIANCE SYSTEM PIN:		OR	CENTRAL SUPPLIER DATABASE No:	MAAA	
B-BBEE STATUS LEVEL VERIFICATION CERTIFICATION	ATC	TICK APPLICAE	BLE BOX]	B-BBEE STA	ATUS LEVEL SWORN	[TICK APF	PLICABLE BOX]
VERIFICATION CERTIFICA	AIE			AFFIDAVII			
		☐ Yes	☐ No			☐ Yes	☐ No
[A B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE/ SWORN AFFIDAVIT (FOR EMES & QSEs) MUST BE SUBMITTED IN ORDER TO QUALIFY FOR PREFERENCE POINTS FOR B-BBEE]							
a) ARE YOU	THE	LI ENENCE POINTS	I ON B-BBEE]				
ACCREDITED				b) AR	E YOU A FOREIGN		
REPRESENTATI		<b> </b>	П.,		ASED SUPPLIER FOR	□Yes	□No
SOUTH AFRICA FOR THE GOODS		l ⊔ <sub>Yes</sub>	$\square_{No}$		HE GOODS /SERVICES VORKS OFFERED?	TIE VEC AND	OWED THE
/SERVICES /WORKS OFFERED?		[IF YES ENCLOSE PI	ROOF]	/ (	OTTENED!	-,	IAIRE BELOW ]
QUESTIONNAIRE TO BIDDING FOREIGN SUPPLIERS							
GOLOTIONINAITE TO BID	J	CHEIGH OUI I LILIIO					

IS THE ENTITY A RESIDENT OF THE REPUBLIC OF SOUTH AFRICA (RSA)?	☐ YES ☐ NO	
DOES THE ENTITY HAVE A BRANCH IN THE RSA?	☐ YES ☐ NO	
DOES THE ENTITY HAVE A PERMANENT ESTABLISHMENT IN THE RSA?	☐ YES ☐ NO	
DOES THE ENTITY HAVE ANY SOURCE OF INCOME IN THE RSA?	☐ YES ☐ NO	
IS THE ENTITY LIABLE IN THE RSA FOR ANY FORM OF TAXATION?	☐ YES ☐ NO	
IF THE ANSWER IS "NO" TO ALL OF THE ABOVE, THEN IT IS NOT A REQUIREMENT TO REGISTER FOR A TAX COMPLIANCE STATUS SYSTEM PIN CODE FROM THE SOUTH AFRICAN REVENUE SERVICE (SARS) AND IF NOT REGISTER AS PER 2.3 BELOW.		

#### **PART B**

#### TERMS AND CONDITIONS FOR BIDDING

#### 1. BID SUBMISSION:

- 1.1. BIDS MUST BE DELIVERED BY THE STIPULATED TIME TO THE CORRECT ADDRESS. LATE BIDS WILL NOT BE ACCEPTED FOR CONSIDERATION.
- 1.2. ALL BIDS MUST BE SUBMITTED ON THE OFFICIAL FORMS PROVIDED (NOT TO BE RE-TYPED) OR IN THE MANNER PRESCRIBED IN THE BID DOCUMENT.
- 1.3. THIS BID IS SUBJECT TO THE PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT, 2000 AND THE PREFERENTIAL PROCUREMENT REGULATIONS, 2022, THE JOINT BUILDING CONTRACT COMMITTEE (JBCC) AND, IF APPLICABLE, ANY OTHER SPECIAL CONDITIONS OF CONTRACT.
- 1.4. THE SUCCESSFUL BIDDER WILL BE REQUIRED TO FILL IN AND SIGN A WRITTEN CONTRACT FORM (SBD7).

#### 2. TAX COMPLIANCE REQUIREMENTS

- 2.1 BIDDERS MUST ENSURE COMPLIANCE WITH THEIR TAX OBLIGATIONS.
- 2.2 BIDDERS ARE REQUIRED TO SUBMIT THEIR UNIQUE PERSONAL IDENTIFICATION NUMBER (PIN) ISSUEDBY SARS TO ENABLE THE ORGAN OF STATE TO VERIFY THE TAXPAYER'S PROFILE AND TAX STATUS.
- 2.3 APPLICATION FOR TAX COMPLIANCE STATUS (TCS) PIN MAY BE MADE VIA E-FILING THROUGH THE SARS WEBSITE WWW.SARS.GOV.ZA.
- 2.4 BIDDERS MAY ALSO SUBMIT A PRINTED TCS CERTIFICATE TOGETHER WITH THE BID.
- 2.5 IN BIDS WHERE CONSORTIA / JOINT VENTURES / SUB-CONTRACTORS ARE INVOLVED, EACH PARTY MUST SUBMIT A SEPARATE TCS CERTIFICATE / PIN / CSD NUMBER.
- 2.6 WHERE NO TCS PIN IS AVAILABLE BUT THE BIDDER IS REGISTERED ON THE CENTRAL SUPPLIER DATABASE (CSD), A CSD NUMBER MUST BE PROVIDED.
- 2.7 NO BIDS WILL BE CONSIDERED FROM PERSONS IN THE SERVICE OF THE STATE, COMPANIES WITH DIRECTORS WHO ARE PERSONS IN THE SERVICE OF THE STATE, OR CLOSE CORPORATIONS WITH MEMBERS PERSONS IN THE SERVICE OF THE STATE."

# NB: FAILURE TO PROVIDE / OR COMPLY WITH ANY OF THE ABOVE PARTICULARS MAY RENDER THE BID INVALID.

SIGNATURE OF BIDDER:	
CAPACITY UNDER WHICH THIS BID IS SIGNED: (Proof of authority must be submitted e.g. company resolution)	
DATE:	

# PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2022

This preference form must form part of all tenders invited. It contains general information and serves as a claim form for preference points for specific goals.

NB: BEFORE COMPLETING THIS FORM, TENDERERS MUST STUDY THE GENERAL CONDITIONS, DEFINITIONS AND DIRECTIVES APPLICABLE IN RESPECT OF THE TENDER AND PREFERENTIAL PROCUREMENT REGULATIONS, 2022

#### 1. GENERAL CONDITIONS

- 1.1 The following preference point systems are applicable to invitations to tender:
  - the 90/10 system for requirements with a Rand value of above R50 000 000 (allapplicable taxes included)

## 1.2 To be completed by the organ of state

- a) The applicable preference point system for this tender is the 90/10 preference point system.
- b) The 90/10 preference point system will be applicable in this tender. The lowest/ highest acceptable tender will be used to determine the accurate system once tenders are received.
- 1.3 Points for this tender (even in the case of a tender for income-generating contracts) shall be awarded for:
  - (a) Price; and
  - (b) Specific Goals.

## 1.4 To be completed by the organ of state:

The maximum points for this tender are allocated as follows:

	POINTS
PRICE	90
SPECIFIC GOALS	10
TARGETED GROUP	
Women Ownership	3
Youth Ownership	3
People with Disabilities Ownership	2
Black Male Ownership	2
Total points for Price and SPECIFIC GOALS	100

- 1.5 Failure on the part of a tenderer to submit proof or documentation required in terms of this tender to claim points for specific goals with the tender, will be interpreted to mean that preference points for specific goals are not claimed.
- 1.6 The organ of state reserves the right to require of a tenderer, either before a tender is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by the organ of state.

#### 2. **DEFINITIONS**

- (a) "tender" means a written offer in the form determined by an organ of state in response to an invitation to provide goods or services through price quotations, competitive tendering process or any other method envisaged in legislation;
- (b) "**price**" means an amount of money tendered for goods or services, and includes all applicable taxes less all unconditional discounts;
- (c) "rand value" means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes;
- (d) "tender for income-generating contracts" means a written offer in the form determined by an organ of state in response to an invitation for the origination of income-generating contracts through any method envisaged in legislation that will result in a legal agreement between the organ of state and a third party that produces revenue for the organ of state, and includes, but is not limited to, leasing and disposal of assets and concession contracts, excluding direct sales and disposal of assets through public auctions; and
- (e) "the Act" means the Preferential Procurement Policy Framework Act, 2000 (Act No. 5 of 2000).

#### 3. FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES

#### 3.1. POINTS AWARDED FOR PRICE

#### 3.1.1 THE 90/10 PREFERENCE POINT SYSTEMS

A maximum of 80 points is allocated for price on the following basis:

$$Ps=80 \ (1-rac{Pt-P\ min}{P\ min}) \ ext{ or } \ Ps=90 \ (1-rac{Pt-P\ min}{P\ min})$$

Where

Ps = Points scored for price of tender under consideration

Pt = Price of tender under consideration

Pmin = Price of lowest acceptable tender

# 3.2. FORMULAE FOR DISPOSAL OR LEASING OF STATE ASSETS AND INCOME GENERATING PROCUREMENT

#### 3.2.1. POINTS AWARDED FOR PRICE

A maximum of 80 points is allocated for price on the following basis:

$$Ps = 80 (1 + \frac{Pt - P \, max}{P \, max})$$

#### Where

Ps = Points scored for price of tender under consideration

Pt = Price of tender under consideration

Pmax = Price of highest acceptable tender

#### 4. POINTS AWARDED FOR SPECIFIC GOALS

- 4.1. In terms of Regulation 4(2); 5(2); 6(2) and 7(2) of the Preferential Procurement Regulations, preference points must be awarded for specific goals stated in the tender. For the purposes of this tender the tenderer will be allocated points based on the goals stated in table 1 below as may be supported by proof/ documentation stated in the conditions of this tender:
- 4.2. In cases where organs of state intend to use Regulation 3(2) of the Regulations, which states that, if it is unclear whether the 80/20 preference point system applies, anorgan of state must, in the tender documents, stipulate in the case of—
  - (a) an invitation for tender for income-generating contracts, that either the 80/20 preference point system will apply and that the highest acceptable tenderwill be used to determine the applicable preference point system; or
  - (b) any other invitation for tender, that either the 80/20 preference point system will apply and that the lowest acceptable tender will be used to determine the applicable preference point system,

then the organ of state must indicate the points allocated for specific goals for both the 90/10 and 80/20 preference point system.

Table 1: Specific goals for the tender and points claimed are indicated per the table below.

(Note to organs of state: Where either the 80/20 preference point system isapplicable, corresponding points must also be indicated as such.

Note to tenderers: The tenderer must indicate how they claim points for each preference point system.)

The specific goals allocated points in terms of this tender	Number ofpoints  allocated(90/10  system)  (To be completed by the organof state)	Number ofpoints claimed (90/10 system) (To be completed by the tenderer)
Women Ownership	3	
Youth Ownership	3	
People with Disabilities Ownership	2	
Black Male Ownership	2	

#### Source Documents to be submitted with the Bid or RFQ

\*CIPC Document (Company Registration Document will be required for verification (CIPC DOC))

\*Woman (Originally Certified ID Document)

\*Youth (Originally Certified ID Document)

\*People with Disability (Letter from the Dr. Confirming the Disability)

\*Black Ownership (Originally Certified ID Document)

# **DECLARATION WITH REGARD TO COMPANY/FIRM**

4.3.	Name of company/firm		
4.4.	Company registration number:		
4.5.	TYPE OF COMPANY/ FIRM		
	Partnership/Joint Venture / Consortium One-person business/sole propriety Close corporation Public Company Personal Liability Company (Pty) Limited Non-Profit Company State Owned Company [TICK APPLICABLE BOX]		

- 4.6. I, the undersigned, who is duly authorized to do so on behalf of the company/firm, certifythat the points claimed, based on the specific goals as advised in the tender, qualifies the company/ firm for the preference(s) shown and I acknowledge that:
  - The information furnished is true and correct;
  - ii) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;
  - iii) In the event of a contract being awarded as a result of points claimed as shown in paragraphs 1.4 and 4.2, the contractor may be required to furnish documentary proof to the satisfaction of the organ of state that the claims are correct:
  - iv) If the specific goals have been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the organ of state may, in addition to any other remedy it may have
    - (a) disqualify the person from the tendering process;
    - (b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct;
    - (c) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation;
    - (d) recommend that the tenderer or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted from obtaining business from any organ of state for a period not exceeding 10 years, after the *audi alteram partem* (hear the other side) rule has been applied; and
    - (e) forward the matter for criminal prosecution, if deemed necessary.

	SIGNATURE(S) OF TENDERER(S)
SURNAME AND NAME:	
DATE:	
ADDRESS:	

## **T2.1.3 CIPC Document**

#### Source Documents to be submitted with the Bid or RFQ

- \*CIPC Document (Company Registration Document will be required for verification (CIPC DOC))
- \*Woman (Originally Certified ID Document)
- \*Youth (Originally Certified ID Document)
- \*People with Disability (Letter from the Dr. Confirming the Disability)
- \*Black Ownership (Originally Certified ID Document)

# **T2.1.4 TAX CLEARANCE CERITFICATE**

Tax Clearance Certificate or Unique Pin obtained from SARS to be inserted here]

# T2.1.5 JOINT VENTURE AGREEMENT BETWEEN PARTIES

Attached hereto is our duly signed, Joint Venture Agreement. Our failure to submit the agreement with our tender document will lead to the conclusion that the joint venture has not been formally formed and all parties were not involved in the tender process.

## T2.1.6 CONTRACTOR'S COPY OF REGISTRATION OF INCORPORATION

Attached hereto is my / our copies of company registration of incorporation or company registration documents. My failure to submit the copy with my / our tender document will lead to the conclusion that I am / we are not registered as claimed.

#### T2.1.7 CIDB REGISTRATION CERTIFICATE

Attached hereto is my / our registration certificate with the Construction Industry Development Board. My / our failure to submit the certificate with my / our tender document will lead to the conclusion that my / our company is not registered with CIDB.

NOTE: The CIDB can be contacted or visited on www.cidb.org.za for more information and registration. Obtain a "Code of Conduct for all parties engaged in construction procurement" for you information.

# T2.1.8 COPY OF A LETTER OF GOODSTANDING WITH COMPANSATION FOR OCCUPATIONAL AND INJURIES DISEASES ACT (COIDA OR TENDER LETTER OBTAIN FROM DEPARTMENT OF LABOUR OR FEMA)REGISTRATION CERTIFICATE

Attached hereto is my / our certified copy of A LETTER OF good standing with the Compensation for Occupational Injuries and Diseases, e.g. letter of good standing. My / our failure to submit the certificate with your tender offer will lead to the conclusion that your entity/ company is not registered with COIDA / FEMA. If Joint Venture (JV) attach one for every service provider.

Note: Compulsory Enterprise Questionnaire must be completed by each member of a JV or consortium

Section 3: CIDB registration nu	ımber, if any:			
Section 4: Particulars of sole p	roprietors and partners in partne	erships		
Name*	Identity number*	Personal inc	come tax num	nber*
* Complete only if sole proprietor or par	tnership and attach separate page if mo	ore than 3 partne	ers	
Section 5: Particulars of compa	anies and close corporations			
Company registration number				
Close corporation number				
Tax reference number				
Section 6: Record in the service of the state Indicate by marking the relevant boxes with a cross, if any sole proprietor, partner in a partnership or director, manager, principal shareholder or stakeholder in a company or close corporation is currently or has been within the last 12 months in the service of any of the following:  I a member of any municipal council I a member of any provincial legislature I a member of the National Assembly or the National Council of Province I a member of the board of directors of any municipal entity I an official of any municipality or municipal entity If any of the above boxes are marked, disclose the following:  Name of sole proprietor, Name of institution, public office, board or Status of service				
partner, director, manager, principal shareholder or	organ of state and position he			
stakeholder			Odirent	12 months
*insert separate page if necessary				

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

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

- 1 a member of any municipal council
- 1 a member of any provincial legislature
- 1 a member of the National Assembly or

the National Council of Province

Υ an employee of any provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance

Management Act, 1999 (Act 1 of 1999)

r r	a board of directors of anymunicipal entity an official of any municipality or municipalentity
Υ	member of the

- I a member of an accounting authority of any nationalor provincial public entity
- 1 an employee of Parliament or a provincial legislature

#### T2.1.9 COMPULSORY ENTERPRISE QUESTIONNAIRE

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

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

- i) authorizes the Employer to obtain a tax clearance certificate from the South African Revenue Services that my / our tax matters are in order;
- ii) confirms that the neither the name of the enterprise or the name of any partner, manager, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise appears on the Register of Tender Defaulters established in terms of the Prevention and Combating of Corrupt Activities Act of 2004;
- iii) confirms that no partner, member, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise appears, has within the last five years been convicted of fraud or corruption;
- iv) confirms that I / we are not associated, linked or involved with any other bidding entities submitting tender offers and have no other relationship with any of the tenderers or those responsible for compiling the scope of work that could cause or be interpreted as a conflict of interest; and
- iv) confirms that the contents of this questionnaire are within my personal knowledge and are to the best of my belief both true and correct.

Signed Name	 
Enterprise name	

<sup>\*</sup>insert separate page if necessary

a member of an accounting authority of any national or provincial public entity

1 an employee of Parliament or a provincial legislature

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

<sup>\*</sup>insert separate page if necessary

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

- v) authorizes the Employer to obtain a tax clearance certificate from the South African Revenue Services that my / our tax matters are in order;
- vi) confirms that the neither the name of the enterprise or the name of any partner, manager, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise appears on the Register of Tender Defaulters established in terms of the Prevention and Combating of Corrupt Activities Act of 2004;
- vii)confirms that no partner, member, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise appears, has within the last five years been convicted of fraud or corruption;
- viii) confirms that I / we are not associated, linked or involved with any other bidding entities submitting tender offers and have no other relationship with any of the tenderers or those responsible for compiling the scope of work that could cause or be interpreted as a conflict of interest; and
- iv) confirms that the contents of this questionnaire are within my personal knowledge and are to the best of my belief both true and correct.

Signed	Date	
Name	Position	
Enterprise name		

# **BIDDER'S DISCLOSURE**

#### 1. PURPOSE OF THE FORM

Any person (natural or juristic) may make an offer or offers in terms of this invitation to bid. In line with the principles of transparency, accountability, impartiality, and ethics as enshrined in the Constitution of the Republic of South Africa and further expressed in various pieces of legislation, it is required for the bidder to make this declaration in respect of the details required hereunder.

Where a person/s are listed in the Register for Tender Defaulters and / or the List of Restricted Suppliers, that person will automatically be disqualified from the bid process.

#### 2. Bidder's declaration

- Is the bidder, or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest1 in the enterprise. employed by the state? YES/NO
- If so, furnish particulars of the names, individual identity numbers, and, if applicable, state employee numbers of sole 2.1.1 proprietor/ directors / trustees / shareholders / members/ partners or any person having a controlling interest in the enterprise, in table below.

Full Name	Identity Number	Name of institution	State

2.2	Do you, or anyperson connected with the bidder, have a relationship with any person who is employed by th	е
	procuring institution? YES/NO	

2.2.1	If so, furnish particulars:

Does the bidder or any of its directors / trustees / shareholders / members / partners or any personhaving a controlling 2.3 interest in the enterprise have any interest in any other related enterprise whether or not they are bidding for this contract? YES/NO

65

T2.1

2.3.1	If so, furnish particulars:	
3 E	DECLARATION	
		hereby make the following statements that I certify to be trueand complete in
3.1 3.2	I have read and I understand the co I understand that the accompanyin every respect;	tents of this disclosure; bid will be disqualified if this disclosure is found not to be trueand complete i
3.3	The bidder has arrived at the acc	empanying bid independently from, and without consultation, communication competitor. However, communication between partners in a joint venture collusive bidding.
3.4	In addition, there have been no coregarding the quality, quantity, specmarket allocation, the intention or d	nsultations, communications, agreements or arrangements withany competitor fications, prices, including methods, factors orformulas used to calculate prices cision to submit or not to submit the bid, bidding with the intention not to win the lars of the products or services to which this bid invitation relates.
3.4	The terms of the accompanying bid	ave not been, and will not be, disclosed by the bidder, directlyor indirectly, to an of the official bid opening or of the awarding of the contract.
3.5	of the procuring institution in relation	ommunications, agreements or arrangements made by the bidder with any official to this procurement process prior to and during the bidding process except the titled where so required by the institution; and the bidder was not involved in the of reference for this bid.
3.6	related to bids and contracts, bids the and possible imposition of administration and be reported to the National Proconducting business with the public	nout prejudice to any other remedy provided to combat any restrictive practice at are suspicious will be reported to the Competition Commission for investigation tive penalties in terms of section 59 of the Competition Act No 89 of 1998 and of secuting Authority (NPA) for criminal investigation and or may be restricted from sector for a period not exceeding ten (10) years in terms of the Preventionan Io 12 of 2004 or any other applicable legislation.
	I ACCEPT THAT THE STAT PARAGRAPH 6 OF PFMA	ON FURNISHED IN PARAGRAPHS 1, 2 and 3 ABOVE ISCORRECT.  E MAY REJECT THE BID OR ACT AGAINST ME INTERMS O SCM INSTRUCTION 03 OF 2021/22 ON PREVENTING ANI HE SUPPLY CHAIN MANAGEMENT SYSTEM SHOULD THIS E FALSE.
	Signature	Date
	Position	Name of bidder

# T2.1.15 CERTIFICATE OF AUTHORITY FOR SIGNATORY

Indicate the status of the tenderer by ticking the appropriate box hereunder. The tenderer must complete the certificate set out below for the relevant category, and attach their Registration Certificates for Companies, Close Corporations and Partnerships, or Agreements and Powers of Attorney for Joint Ventures, or ID documents to the page provided at the end of this form.

(I) COMPANY	(II) CLOSE CORPORATION	(III) PARTNERSHIP	(IV) JOINT VENTURE	(V) SOLE PROPRIETOR

(I) CERTIFICATE FOR COMPANY
I,, Id numberchairperso
of the Board of Directors ofhereby confirm that by resolution
of the Board (copy attached) taken onacting
in the capacity of, was authorized to sign all documents in connection
with the tender for Contract No and any contract resulting from it, on behalf of the
company.
Chairman:
As Witnesses: 1.
2 Date:
(II) CERTIFICATE FOR CLOSE CORPORATION
We, the undersigned, being the key members in the business trading as
hereby authorize Mr./Ms, acting in the capacity of,
to sign all documents in connection with the tender for Contract No and any contract resulting from it, on our behalf.

NAME	ADDRESS	SIGNATURE	DATE
ID No			

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

	hereby authorize Mr./Ms.		
cting in the capacity of		, to sign all	
locuments in connection wi esulting from it, on our beh	ith the tender for Contract Noalf.	and any contract	
NAME	ADDRESS	SIGNATURE	DATE
lata . This soutificate is t			
the direction of th	o be completed and signed by all of the key per affairs of the Partnership as a whole.	partners upon whom re	ests
the direction of th	e affairs of the Partnership as a whole.	·	
the direction of th  IV) CERTIFICATE FOF  Ve, the undersigned, are so	e affairs of the Partnership as a whole.	nereby authorize Mr./Ms	
the direction of th	e affairs of the Partnership as a whole.  R JOINT VENTURE  ubmitting this tender offer in Joint Venture and	nereby authorize Mr./Ms	
the direction of the IV) CERTIFICATE FOR IV, the undersigned, are substituted in the capacity of learners.	e affairs of the Partnership as a whole.  R JOINT VENTURE  ubmitting this tender offer in Joint Venture and, authorized signatory of the compa	nereby authorize Mr./Ms ny,vith the tender offer for	
the direction of the IV) CERTIFICATE FOR IV, the undersigned, are substituted in the capacity of lead Contract No	e affairs of the Partnership as a whole.  R JOINT VENTURE  ubmitting this tender offer in Joint Venture and, authorized signatory of the compa d partner, to sign all documents in connection	nereby authorize Mr./Ms ny, with the tender offer for on our behalf.	
the direction of the IV) CERTIFICATE FOR IV, the undersigned, are substituted in the capacity of lead Contract No	e affairs of the Partnership as a whole.  R JOINT VENTURE  ubmitting this tender offer in Joint Venture and, authorized signatory of the compa d partner, to sign all documents in connection	nereby authorize Mr./Ms ny, with the tender offer for on our behalf.	
the direction of the IV) CERTIFICATE FOR We, the undersigned, are subscribed in the capacity of lead Contract No	e affairs of the Partnership as a whole.  R JOINT VENTURE  ubmitting this tender offer in Joint Venture and, authorized signatory of the compa d partner, to sign all documents in connection of the compa and any contract resulting from it, of the compa and the attached power of attorney signed by the Joint Venture.	nereby authorize Mr./Ms ny, with the tender offer for on our behalf. by legally authorized  AUTHORISING S	
the direction of the IV) CERTIFICATE FOR We, the undersigned, are suggested in the capacity of lead Contract No	e affairs of the Partnership as a whole.  R JOINT VENTURE  ubmitting this tender offer in Joint Venture and, authorized signatory of the compa d partner, to sign all documents in connection of the compa and any contract resulting from it, of the compa and the attached power of attorney signed by the Joint Venture.	nereby authorize Mr./Ms ny, with the tender offer for on our behalf. by legally authorized  AUTHORISING S	

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

(V)	CERTIFICATE FOR SOLE PROPRIETOR		
l,	, hereby confirm that I am the sole owner of the business		
trading as			
Signature of Sole owner:			
As Witnesses:			
1.			
2.			
Date:			

# **T2.1.16 RECORD OF ADDENDA TO THE TENDER DOCUMENTS**

We confirm that the following communications received from the Employer before the submission of this tender offer, amending the tender documents, have been taken into account in this tender offer			
	Date	Title or Details	
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
Attach additional pages if more space is required.			
Signed		Date	
	Name		
ID number		Position	
Tenderer			

# T2.1.17 TENDERER'S FINANCIAL STANDING

The Tenderer shall provide information about his commercial position, which includes information necessary for the Employer to evaluate the Tenderer's financial standing.

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

However, should the Tenderer be unable to provide a bank rating with his tender, he shall state the reasons as to why he is unable to do so, and in addition provide the following details of his banker and bank account that he intends to use for project:

Name of account holder:	<u> </u>
Name of Bank:	<u></u>
Branch:	<u></u>
Account number:	<u> </u>
Type of account :	<u> </u>
Telephone number :	<u> </u>
Facsimile number:	
Name of contact person (at bank:	
Failure to provide either the required bank details or a certific lead to the conclusion that the Tenderer does not have the new disposal to complete the contract successfully within the special to the Employer undertakes to treat the information thus obtained a evaluation of the tender submitted by the Tenderer.	cessary financial resources at his ified time for completion.
SIGNATURE:	
IDENTITY NUMBER:	
(of person authorized to sign on behalf of the Tenderer)	
DATE:	

# T2.1.18 AMENDMENTS, QUALIFICATIONS AND ALTERNATIVES

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

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

# (a) AMENDMENTS

PAGE, CLAUSE OR ITEM NO	PROPOSED AMENDMENT

[Notes: (1) Proposals for amendments to the General and Special Conditions of Contract are not acceptable, and will be ignored;

(2) The Tenderer must give full details of all the financial implications of the amendments and qualifications in a covering letter attached to his tender.

# (b) ALTERNATIVES

PROPOSED ALTERNATIVE	DESCRIPTION OF ALTERNATIVE

[Notes: (1) Individual alternative items that do not justify an alternative tender, and an alternative offer for time for completion should be listed here.

- (2) In the case of a major alternative to any part of the work, a separate Bill of Quantities, programme, etc., and a detailed statement setting out the salient features of the proposedalternatives must accompany the tender.
- (3) Alternative tenders involving technical modifications to the design of the works and methods of construction shall be treated separately from the main tender offer.]

# (c) DISCOUNTS

ITEM ON WHICH DISCOUNT IS OFFERED	DESCRIPTION OF DISCOUNT OFFERED

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

SIGNATURE:	IDENTITY NUMBER:
(of person authorized to sign on behalf of the Tender	rer) DATE:

# T2.1.19 SOCIO ECONOMIC UPLIFTMENT STRATEGY

Attached hereto are my / our proposed socio-economic upliftment strategy. The strategy will as a minimum address items such as skills upliftment, training, sub-contracting, skilled and semi-skilled labour employment, procurement of local labour and materials, employment of woman, youth and disabled, etc.

# Notes:

- a) The developer has a commitment to utilising the local community resources and labour, and as such preference will be shown to bidders who prioritise local employment.
- b) As part of the tender documentation a methodology is to be submitted proposing as to how the main contractor will deal with the social economic expectations of the surrounding community.
  - The proposal is to allow for a suitable employment ratio of local community members and any additional measures that will enable future local community upliftment.
- c) The main contractor is required to familiarise himself with the community and local authority to ascertain for himself the full extent of the community's requirements and minimum wages.
- d) The contractor shall appoint a community liaison officer and shall be responsible for all community negotiations etc.

### T2.1.21 CONTRACTOR'S HEALTH AND SAFETY DECLARATION

In terms of Clause 5(1)(h) of the OHSA 1993 Construction Regulations 2014 (referred to as "the Regulations" hereafter), a Contractor may only be appointed to perform construction work if the Employer is satisfied that the Contractor has the necessary competencies and resources to carry out the work safely in accordance with the Occupational Health and Safety Act No 85 of 1993 and the OHSA 1993 Construction Regulations 2014.

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

# **Declaration by Tenderer**

- 1. I the undersigned hereby declare and confirm that I am fully conversant with the Occupational Health and Safety Act No 85 of 1993 (as amended by the Occupational Health and Safety Amendment Act No 181 of 1993), and the OHSA 1993 Construction Regulations 2014.
- 2. I hereby declare that my company / enterprise has the competence and the necessary resources to safely carry out the construction work under this contract in compliance with the Construction Regulations and the Employer's Health and Safety Specifications.
- 3. I hereby undertake, if my tender is accepted, to provide a sufficiently documented Health and Safety Plan in accordance with Regulation 5(1) of the Construction Regulations, approved by the Employer or his representative, before I could be allowed to commence with construction work under the contract. I hereby agree that my company/enterprise will not have a claim for compensation for delay or extension of time because of my failure to obtain the necessary approval for the said safety plan.
- 4. I confirm that copies of my company's approved Health and Safety Plan, the Employer's Safety Specifications as well as the OHSA 1993 Construction Regulations 2014 will be provided on site and will at all times be available for inspection by the Contractor's personnel, the Employer's personnel, the Engineer, visitors, and officials and inspectors of the Department of Labour.
- 5. I hereby confirm that adequate provision has been made in my tendered rates and prices in the bill of quantities to cover the cost of all resources, actions, training and all health and safety measures envisaged in the OHSA 1993 Construction Regulations 2014, including the cost for specific items that may be scheduled in the bill of quantities.
- 6. I hereby confirm that I will be liable for any penalties that may be applied by the Employer in terms of the said Regulations for failure on my part to comply with the provisions of the Act and the Regulations as set out in Regulation 33 of the Regulations.
- 7. I agree that my failure to complete and execute this declaration to the satisfaction of the Employer will mean that I am unable to comply with the requirements of the OHSA 1993 Construction Regulations 2014 and accept that my tender will be prejudiced and may be rejected at the discretion of the Employer.
- 8. I am aware of the fact that, should I be awarded the contract, I must submit the notification required in terms of Regulation 4 of the OHSA 1993 Construction Regulations 2014 (example attached hereafter) before I could be allowed to proceed with any work under the contract.

SIGNATURE:
IDENTITY NUMBER:
(of person authorized to sign on behalf of the Tenderer)
DATE:

# T2.2.1 EVALUATION SCHEDULE: SAFETY HEALTH ENVIRONMENTAL AND QUALITY MANAGEMENT SYSTEM (SHEQ) PLAN

Attached hereto are my / our SHEQ Plan, all in compliance with the Health and Safety Specification – Annexure A or Letter of Undertaking from a Qualified OHS Consultant.

(PLEASE ATTACHED HERE)

# T2.2.2 EVALUATION SCHEDULE: PROJECT EXPERIENCE

The Tenderer shall provide details of his relevant experience on similar large-scale projects completed in the past 10 years. In support tenderers are to complete the "Project Experience" schedule below and attach thereto copies of (a) Letters of Appointment, and (b) all the relevant Completion Certificates (practical completion, work completion & final completion)

PROJECT NAME and CLIENT	BRIEF PROJECT DESCRIPTION	PROJECT VALUE (Incl VAT)	START DATE	COMPLETION DATE
A.				
В.				
C.				

PROJECT NAME and CLIENT	BRIEF PROJECT DESCRIPTION	PROJECT VALUE (Incl VAT)	START DATE	COMPLETION DATE
D.				
E.				
F.				

# T2.2.3 EVALUATION SCHEDULE: LETTERS OF APPOINTMENT, AND RELEVANT COMPLETION CERTIFICATES (PRACTICAL COMPLETION, WORK COMPLETION & FINAL COMPLETION)

Tenderer is to attach all letter of appointment and completion certificate corresponding to the project listed in T1.2

### T2.2.4 EVALUATION SCHEDULE: CLIENT REFERENCES

The Tenderer shall provide details of his performance on each of the previous projects listed in the "Relevant Experience" returnable schedule. "Client Reference Scorecards" will be completed by each of the respective Clients for the projects listed in the "Relevant Experience" returnable schedule OR The tenderer shall provide contactable reference letter/s in the same format as this form (T2.2.4) to measure performance, the letter must be signed and dated by client.

REPORT ON CONTRACTOR'S COMPETANCE & PERFORMANCE ON A SIMILAR PROJECT FOR TENDER RECOMMENDATION PURPOSES

PROJECT NAME A:					
Principal agent:					
Contract Amount:					
Contract Duration:					
Actual Contract Duration:					
Description / Performance	Not Acceptable	Poor (1 points)	Satisfactory (3 points)	Good (4 points)	Very Good (5 points)
Project Performance / Time Management – Project completed before contractual period (time)					
Project Performance / Time					
Management - Project completedon					
contractual period (time)					
Quality of site management					
Quality of workmanship					
Quality of materials					
Financial Management – Cashflow Management					
Financial Management – Payment of Subcontractors					
Financial Management – Payment of labour force					
Financial Management – Procurement of Materials					
Any other remarks considered necessary to assis	st in evaluation of t	he contractor?			
Principal Agent Firm:					Stamp
Telephone:					
PA / Client Signature:		Date:			
				]	

# **T2.2.4 EVALUATION SCHEDULE: CLIENT REFERENCES**

The Tenderer shall provide details of his performance on each of the previous projects listed in

the "Relevant Experience" returnable schedule. "Client Reference Scorecards" will be completed by each of the respective Clients for the projects listed in the "Relevant Experience" returnable schedule OR The tenderer shall provide contactable reference letter/s in the same format as this form (T2.2.4) to measure performance, the letter must be signed and dated by client

REPORT ON CONTRACTOR'S COMPETANCE & PERFORMANCE ON A SIMILAR PROJECT FOR TENDER RECOMMENDATION PURPOSES

PROJECT NAME B:					
Principal agent:					
Client:					
Contract Amount:					
Contract Duration:					
Actual Contract Duration:					
Description / Performance	Not Acceptabl e	Poor	Satisfactory	Good	Very Good
Project Performance / Time Management – Project completed before contractual period (time)					
Project Performance / Time  Management - Project completedon					
contractual period (time)					
Quality of site management					
Quality of workmanship  Quality of materials					
Financial Management – Cashflow Management					
Financial Management – Payment of Subcontractors					
Financial Management – Payment of labour force					
Financial Management – Procurement of Materials					
Any other remarks considered necessary to a					
Principal Agent Firm:					Stamp
Telephone:					
PA / Client Signature:		Date:			
				•	

# **T2.2.4 EVALUATION SCHEDULE: CLIENT REFERENCES**

The Tenderer shall provide details of his performance on each of the previous projects listed in

the "Relevant Experience" returnable schedule. "Client Reference Scorecards" will be completed by each of the respective Clients for the projects listed in the "Relevant Experience" returnable schedule OR The tenderer shall provide contactable reference letter/s in the same format as this form (T2.2.4) to measure performance, the letter must be signed and dated by client.

REPORT ON CONTRACTOR'S COMPETANCE & PERFORMANCE ON A SIMILAR PROJECT FOR TENDER RECOMMENDATION PURPOSES

Principal agent:					
nent.		••••••			
Contract Amount:					
Contract Duration:					
Actual Contract Duration:					
Description / Performance	Not Acceptable	Poor	Satisfactory	Good	Very Good
Project Performance / Time Management – Project completed before contractual period (time)					
Project Performance / Time					
Management - Project completedon					
contractual period (time)					
Quality of site management					
Quality of workmanship					
Quality of materials					
Financial Management – Cashflow Management					
Financial Management – Payment of Subcontractors					
Financial Management – Payment of labour force					
Financial Management – Procurement of Materials					
any other remarks considered necessary to			ctor?		<u> </u>
Principal Agent Firm:					Stamp
elephone:					•
PA / Client Signature:		Date:			

The Tenderer shall provide details of his performance on each of the previous projects listed in

the "Relevant Experience" returnable schedule. "Client Reference Scorecards" will be completed by each of the respective Clients for the projects listed in the "Relevant Experience" returnable schedule OR The tenderer shall provide contactable reference letter/s in the same format as this form (T2.2.4) to measure performance, the letter must be signed and dated by client

# REPORT ON CONTRACTOR'S COMPETANCE & PERFORMANCE ON A SIMILAR PROJECT FOR TENDER RECOMMENDATION PURPOSES

lient:					
ontract Amount:					
ontract Duration:					
Description / Performance	Not Acceptable	Poor	Satisfactory	Good	Very Good
Project Performance / Time Management – Project completed before contractual period (time)					
Project Performance / Time					
Management - Project completedon contractual period (time)					
Quality of site management					
Quality of workmanship					
Quality of materials					
Financial Management – Cashflow Management					
Financial Management – Payment of Subcontractors					
Financial Management – Payment of labour force					
Financial Management – Procurement of Materials					
ny other remarks considered necessary t					
rincipal Agent Firm:					Stamp
elephone:					

The Tenderer shall provide details of his performance on each of the previous projects listed in

the "Relevant Experience" returnable schedule. "Client Reference Scorecards" will be completed by each of the respective Clients for the projects listed in the "Relevant Experience" returnable schedule OR The tenderer shall provide contactable reference letter/s in the same format as this form (T2.2.4) to measure performance, the letter must be signed and dated by client

# REPORT ON CONTRACTOR'S COMPETANCE & PERFORMANCE ON A SIMILAR PROJECT FORTENDER RECOMMENDATION PURPOSES

rincipal agent:					
ontract Amount:					
ontract Duration:					
ctual Contract Duration:					
Description / Performance	Not Acceptable	Poor	Satisfactory	Good	Very Good
Project Performance / Time Management – Project completed before contractual period (time)					
Project Performance / Time					
Management - Project completedon contractual period (time)					
Quality of site management					
Quality of workmanship					
Quality of materials					
Financial Management – Cashflow Management					
Financial Management – Payment of Subcontractors					
Financial Management – Payment of labour force					
Financial Management – Procurement of Materials					
ny other remarks considered necessary to					
rincipal Agent Firm:					Stam
elephone:					

# T2.2.5 EVALUATION SCHEDULE: KEY PERSONNEL

In terms of the Project Specification and the Conditions of Tender, unskilled workers may only be brought in from outside the local community if such personnel are not available locally.

The Tenderer shall list below the personnel that he intends to utilize on the Works, including key personnel that may have to be brought in from outside if not available locally.

			NUMBER O	F PERSONS		
CATEGORY OF EMPLOYEE	KEY PERSONNEL, PART OF THE CONTRACTOR'S ORGANISATION		KEY PERSONNEL TO BE IMPORTED IF NOT AVAILABLE LOCALLY		UNSKILLED PERSONNEL TO BE RECRUITED FROM LOCAL COMMUNITY	
	HDI	NON-HDI	HDI	NON-HDI	HDI	NON-HDI
Construction Manager, Site Agent, Project Managers Foremen, Quality Control and Safety Personnel						
Technicians, Surveyors, etc						
Artisans and other Skilled workers						
Plant Operators						
Others:						

The Tenderer is referred to Clause F.2.1.1.2 of the Tender Data and shall insert in the spaces provided on the following pages details of the key personnel required to be in the employment of the tenderer or other organization, in order for the tenderer to be eligible to submit a tender for this project. Proof of professional registration must be appended to these schedules, together with the Curriculum Vitae of each individual.

SIGNATURE:	IDENTITY NUMBER:
(of person authorized to sign on behalf of the Tender	rer) DATE:

# **EVALUATION SCHEDULE: CURRICULUM VITAE OF KEY PERSONNEL (COMPULSORY)**

(CVs are required only for site agent, contract or project manager and technician and foreman)

# CV FOR CONTRACTS OR PROJECT MANAGER

Name:		Date of birth:
Profession:		Nationality:
Qualifications:		
Professional Body:	Category of Registration:	Registration Number:
Professional Body:	Category of Registration:	Registration Number:
Professional Body:	Category of Registration:	Registration Number:
Name of Employer (firm):		
Current position:		Years of Experience:
Employment Record:		
Experience Record Pertinent to Requ	Jired Service:	
Certification:  I, the undersigned, certify that, to the besme, my qualifications and my experience		this data correctly describes
SIGNATURE:	IDENTITY NUMB	ER:
(of person authorised to sign on behalf o (OWNER OF THE CV)	f the Tenderer) DA	TE:

# **EVALUATION SCHEDULE: CV FOR SITE AGENT**

lame: Date of birth:		Date of birth:
Profession:		Nationality:
Qualifications:		
Professional Body:	Category of Registration:	Registration Number:
Professional Body:	Category of Registration:	Registration Number:
Professional Body:	Category of Registration:	Registration Number:
Name of Employer (firm):	·	
Current position:		Years of Experience:
Employment Record:		
Experience Record Pertinent	t to Required Service:	
-	-	
Certification:		
I, the undersigned, certify that, to me, my qualifications and my ex	o the best of my knowledge and belief, perience.	this data correctly describes
SIGNATURE OF THE INCUMB		DATE
INCUMBANT'S IDENTITY NUM	 IBER (why different from the above)	

# **EVALUATION SCHEDULE: CV FOR FOREMAN**

Name:		Date of birth:
Profession:		Nationality:
Qualifications:		·
Professional Body:	Category of Registration:	Registration Number:
Professional Body:	Category of Registration:	Registration Number:
Professional Body:	Category of Registration:	Registration Number:
Name of Employer (firm):		
Current position:		Years of Experience:
Employment Record:		
Experience Record Pertinent	to Required Service:	
Certification:		
I, the undersigned, certify that, to me, my qualifications and my ex	o the best of my knowledge and belief, perience.	this data correctly describes
SIGNATURE OF THE INCUMBA		DATE
INCUMBANT'S IDENTITY NUM		

# **EVALUATION SCHEDULE: CV FOR HEALTH AND SAFETY OFFICER**

Name: Date of birth:		Date of birth:
Profession:		Nationality:
Qualifications:		·
Professional Body:	Category of Registration:	Registration Number:
Professional Body:	Category of Registration:	Registration Number:
Professional Body:	Category of Registration:	Registration Number:
Name of Employer (firm):	·	•
Current position:		Years of Experience:
Experience Record Pertinent to	Bequired Service:	
Certification:  I, the undersigned, certify that, to the me, my qualifications and my expense.	ne best of my knowledge and belief, th rience.	is data correctly describes
SIGNATURE OF THE INCUMBAN		DATE
INCUMBANT'S IDENTITY NUMBE	 :R	



# PART C1: AGREEMENT AND CONTRACT DATA

- **C1.1 Form of Offer and Acceptance**
- **C1.2 Contract Data**
- C1.3 Form of Guarantee (Pro Forma as per specific contract)
- **C.1.4 Adjudicators Agreement**

**C1.1 FORM OF OFFER AND ACCEPTANCE** 

# C1.1 Form of Offer and Acceptance

# A. Offer [Failure of a Tenderer to sign this form will invalidate the tender]

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

APPOINTMENT OF A CONTRACTOR FOR THE DEMOLITION OF ASBESTOS STRUCTURES AND CONSTRUCTION OF NEW HOSTELS FOR MOEDWIL COMBINED SCHOOL IN BOJANALA DISTRICT FOR THE DEPARTMENT OF EDUCATION, NORTH WEST PROVINCE. – BID NUMBER: DOE14NWER015A

The Tenderer, identified in the Offer signature block below, has examined the documents listed in the Tender Data and addenda thereto as listed in the Tender Schedules, and by submitting this Offer has accepted the Conditions of Tender.

By the representative of the Tenderer, deemed to be duly authorized, signing this part of this Form of Offer and Acceptance, the Tenderer offers to perform all of the obligations and liabilities of the Contractor under the Contract including compliance with all its terms and conditions according to their true intent and meaning for an amount to be determined in accordance with the Conditions of Contract identified in the Contract Data.

The offered total of the prices inclusive of Value Added Tax is:					
Amount in Words:					
This Offer m	ay be accepted by the Employer by sig	ning the Acceptance part of this Form of Offer and			
		WITNESSES			
SIGNATUF	RE(S) OF AUTHORISED BIDDERS(S)	3			
NAME:					
CAPACITY:		4			
DATE:					
ADDRESS					
CONTACT::					

Acceptance and returning one copy of this document to the Tenderer before the end of the period of validity stated in the Tender Data, whereupon the Tenderer becomes the party named as the Contractor in the Conditions of Contract identified in the Contract Data.

### B. ACCEPTANCE

By signing this part of the Form of Offer and Acceptance, the Employer identified below accepts the Tenderer's Offer. In consideration thereof, the Employer shall pay the Contractor the amount due in accordance with the Conditions of Contract identified in the Contract Data. Acceptance of the Tenderer's Offer shall form an agreement between the Employer and the Tenderer upon the terms and conditions contained in this Agreement and in the Contract that is the subject of this Agreement.

The terms of the contract are contained in

Part C1 Agreements and Contract Data (which includes this Agreement)

Part C2 Pricing Data, including the Schedule of Quantities

Part C3 Scope of Work

and the schedules, forms, drawings and documents or parts thereof, which may be incorporated by reference into Parts 1 to 4 above.

Deviations from and amendments to the documents listed in the Tender Data and any addenda thereto listed in the Tender Schedules as well as any changes to the terms of the Offer agreed by the Tenderer and the Employer during this process of offer and acceptance, are contained in the Schedule of Deviations attached to and forming part of this Agreement. No amendments to or deviations from said documents are valid unless contained in this Schedule, which must be duly signed by the authorised representatives of both parties.

The Tenderer shall deliver the Guarantee in terms of Clause 7 of the General Conditions of Contract 2004 within the period stated in the Contract Data, and he shall, immediately after receiving a completed copy of this Agreement, including the Schedule of Deviations (if any), contact the Employer's agent (whose details are given in the Contract Data) to arrange the delivery of any other bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the Conditions of Contract identified in the Contract Data, within 14 days of the date on which this Agreement comes into effect. Failure to fulfil any of these obligations in accordance with those terms shall constitute a repudiation of this Agreement.

Notwithstanding anything contained herein, this Agreement comes into effect on the date when the Tenderer receives one fully completed original copy of this document, including the Schedule of Deviations (if any). Unless the Tenderer (now Contractor) within five days of the date of such receipt notifies the Employer in writing of any reason why he cannot accept the contents of this Agreement, this Agreement shall constitute a binding contract between the parties.

Signature		Date
Name		
Capacity		
for the		
Employer	Independent Development trust	
Name and Signature		
Of witness		Date

### C. SCHEDULE OF DEVIATIONS

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

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

1 Subject	
Details	
•	
2 Subject	
Details	
3 Subject	
Deteile	
Details	
•	

C1.1

4 Subject	
Details	
5 Subject	
Details	

**C1.2 CONTRACT DATA** 

# INDEPENDENT DEVELOPMENT TRUST

BID DATA FOR APPOINTMENT OF A CONTRACTOR FOR THE DEMOLITION OF ASBESTOS STRUCTURES AND CONSTRUCTION OF NEW HOSTELS FOR MOEDWIL COMBINED SCHOOL IN BOJANALA DISTRICT FOR THE DEPARTMENT OF EDUCATION, NORTH WEST PROVINCE.

### C1.2 Contract Data for BID NO: DOE14NWER015A

The Conditions of Contract are clauses of the **JBCC Series 2000 Principal Building Agreement (Edition 6.2)** published by the Joint Building Contracts Committee together with IDT's Special Conditions of Contract.

Copies of these conditions of contract may be obtained from the Association of South African Quantity Surveyors (011 315-4140), Master Builders Association (011 205-9000; 057 352-6269) South African Association of Consulting Engineers (011 463-2022) or South African Institute of Architects (051 447-4909; 011 486-0684; 053 831-2003;)

The JBCC Principal Building Agreement makes several references to the Contract Data for specific data, which together with these conditions collectively describe the risks, liabilities and obligations of the contracting parties and the procedures for the administration of the Contract. Should there be any contradictions between the **Contract Data** and the JBCC Principal Building Agreement, the Contract Data shall take precedence.

Each item of data given below is cross-referenced to the clause in the JBCC Principal Building Agreement to which it mainly applies.

The contractor shall achieve in the performance of the contract the Contract Skills Development Goal (CSDG) established in the CIDB Standard for Developing Skills through Infrastructure Contracts, published in Gazette Notice No.48491 of 28 April 2023.

The contractor shall achieve in the performance of the 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 Gazette Notice No.36190 of 25 February 2013

# The additions, deletions and alterations to the JBCC Principal Agreement are:

Clause	Amendments
1.0	DEFINITIONS AND INTERPRETATION
	Clause 1.1 is deemed to be amended by the addition and amendments of the following:
	Change the Definition of "AGREEMENT" to read as follows: This JBCC Principal Building Agreement, the contractor's tender document accepted by the employer, the form of offer signed by the contractor, special conditions of contract, contract data and other contract documents.
	The completed <b>JBCC</b> ® Principal Building Agreement and <b>JBCC</b> ® <b>contract data</b> , the <b>contract drawings</b> , the <b>priced document</b> and any other documents reduced to writing and signed by the authorized representatives of the <b>parties</b>
	Change the Definition of "BILLS OF QUANTITES" to read as follows: The document drawn up in accordance with the pricing instructions contained in the pricing data.
	Change the Definition of "CONSTRUCTION PERIOD" to read as follows:
	The period commencing on the intended date [CD] of possession of the <b>site</b> by the <b>contractor</b> and ending on the date of <b>practical completion</b>
	Change the Definition of "CONTRACT DOCUMENTS" to read as follows: The agreement and all documents referenced therein. The contract documents shall be taken to be mutually explanatory of one another but in the event of ambiguity, discrepancy, divergence or inconsistency in or between them, the Contract Data shall prevail over all other contract documents The above has been removed from 6.2, due to the agreement definition which now includes contract document
Olovia	Change the definition of "PAYMENT CERTIFICATE" to read as follows:  A certificate prepared at regular agreed intervals by the principal agent to the contractor certifying the value of work done and verified by the employer for payment, delivered to the employer and properly recorded on
Clause	Amendments  delivery, and the certificate will only become due and payable once the employer has verified and signed the certificate. Note: The employer reserves the right to withhold or reject the certificate within ten (10) working days should there be a reason to do so, and the contractor may resort to the dispute resolution process should the rejection fails to be resolved.
	Change the Definition of "PRACTICAL COMPLETION" to read as follows: The stage of completion where the works or a section thereof, in the opinion of the principal agent, has been reached in accordance with C28 & C29 this is a different clause of the specific preliminaries and where the work on the practical completion list (and patent's list if applicable) has been completed and free of latent defects other than minor defects identified in the list for completion and can be used for the intended purpose and certified as complete by the principal agent.
	Change the Definition of "CONTRACT DRAWINGS" to read as follows: The drawings listed in the Scope of Works.

Change the Definition of "CONTRACT SUM" to read as follows:

The total of prices in the Form of Offer and Acceptance.

Change the Definition of "INTEREST" to read as follows:

The interest rates applicable to this contract, whether specifically indicated in the relevant clauses or not, will be the rate as determined by the Minister of Finance, from time to time, in terms of section 80(1)(b) of the Public Finance Management Act, 1999 (Act No. 1 of 1999).

A monetary guarantee [CD] provided by the **employer** to the **contractor**, or vice versa, in terms of this **agreement** from which either **party** may recover expense and loss in the event of default

Add the following to the list of definitions:

**SCHEDULE** means the variables listed in the Contract Data.

**DATE OF SITE HANDOVER** means the date the contractor is given possession of the site, which shall always be after the signing of the agreement and approval of the construction permits from the relevant authorities including Departments of Labour and Environmental Affairs and local municipality (where applicable).

**EXCEPTIONALLY INCLEMENT WEATHER** means weather which is not only extreme or severe but exceeding that which, on the evidence of the past ten years, could reasonably been expected.

**TENANT LIST** means a list compiled by the tenant or in his absence the **principal agent** defining the incomplete or defective work to be rectified to achieve **practical completion**. Such list shall be scrutinised and endorsed by the **principal agent** and shall not be unreasonable in the context of his contract.

**CORRUPT PRACTICE** means the offering, giving, receiving and soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution

**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 practice 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.

# 3.0 OFFER AND ACCEPTANCE

Clause 3.3 deleted and replaced with the following:-

3.3 This **agreement** shall come into force on the date of signature of the contract by the **employer** and after all statutory requirements have been met, and continue to be of force and effect until the end of the **latent defects** liability period notwithstanding termination or the certification and final payment [22.0;29.0;25.0]

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Clause	Amendments
4.0	CESSION AND ASSIGNMENT
	Clause 4.2 deleted and replaced with the following:-
	<b>4.2.</b> The <b>Contractor</b> shall not consent to a nominated <b>Subcontractor</b> assigning or ceding rights or obligations in terms of this <b>agreement</b> without obtaining the prior written consent of the <b>Principal Agent</b> with written approval from the <b>Employer</b>
	Clause 4.3 deleted and replaced with the following:-
	4.3. Where the <b>Contractor</b> intend to cedes any right to monies due or to become due under this agreement
	as security in favour of a financial institution, a written consent in accordance with clause 4.1, shall be
	obtained from the <b>Employer</b> prior to entering into such cession.
	Clause 4.0 is amended by adding the following new clauses:
	4.4 Any cession entered into without the necessary written consent from either party, shall be null and void.
	4.5 The <b>Employer</b> shall not consent to a cession of monies due or to become due under this <b>agreement</b> as security in favour of a financial institution, unless such financial institution submitted to the IDT a Valid Tax Clearance Certificate, is registered as a credit provider in terms of the National Credit Act and as a vendor in the IDT's Vendor Management System and in line with the IDT's SCM processes.
	4.6 The <b>contractor</b> shall adhere to the list of <b>subcontractors</b> indicated in the returnable schedules. Any changes to the <b>subcontractors</b> and their subcontract work shall be approved by the client in writing. The contractor shall not subcontract more than 25% of the works to <b>subcontractors</b> whose BEE status is less than his at the time of appointment. Failure to comply with this shall constitute a breach of contract.
5.0	CONTRACT DOCUMENTS
	Clause 5.1 deleted and replaced with the following:-
	5.1. The parties shall sign the original contract document and shall each be issued with the copy thereof. The original signed contract document shall be held by the <i>Employer</i> .
	Clause 5.6 deleted and replaced with the following:-
	5.6. The contract documents shall be deemed to be mutually explanatory of one another. In the event of ambiguity, discrepancy, divergence or inconsistency in or between them, the <b>Contract Data</b> shall prevail over all other contract documents.

### 6.0 EMPLOYER'S AGENTS

Clause 6.1 deleted and replaced with the following:-

6.1. The **Employer** warrants that the **Principal Agent** has authority and obligation to act and bind the **Employer** in terms of this agreement, subject to certain restrictions contained herein this document.

Clause 6.4 deleted and replaced with the following:-

6.4. Where any agent fails to act in terms of delegated authority, the **Contractor** shall give notice to the **Principal Agent** and the **Employer** to respond to such default within five (5) working days or any agreed period. Where such default has not been responded to within the specified or the agreed period, the **Contractor** may give not less than 10 working days' notice of intention to suspend the works [28.0].

Clause 6.5 deleted and replaced with the following:-

Clause	Amendments
	6.5 Where any agent fails to act or is unable to act, or ceases to be an agent, in terms of this agreement, the <b>Employer</b> shall appoint an interim agent within 10 working days from the date of the employer being aware of such event pending procurement of a replacement agent through normal employer's SCM processes.
9.0	INDEMITIES
	Clause 9.0 is amended by the addition of the following clause:-
	Clause 9.1.4. Physical loss or damage to an existing structure in the works that are the subject of the contract and to existing structures as well.
	Delete 9.2.7.
	Delete 9.2.10.
10.0	INSURANCES
	Clause 10.0 is amended by the addition of the following clauses to the end thereof:
	10.12 Damage to the works
	70.12 Damage to the works
	(a) Without any way limiting the contractor's obligations in terms of the contract, the contractor shall bear the full risk of damage to and/or destruction of the works by whatever cause during construction of the works and hereby indemnifies and holds harmless the employer against any such damage. The contractor shall take such precautions and security measures and other steps for the protection and security of the works as the contractor may deem necessary.
	<ul> <li>(b) The contractor shall at all times proceed immediately to remove or dispose of any debris arising from damage or destruction of the works and to rebuild, restore, replace and/or repair the works.</li> <li>(c) Where the employer bears the risk in terms of this contract, the contractor shall, if requested</li> </ul>
	to do so, reinstate any damage or destroyed portions of the <b>works</b> and the costs of such reinstatement shall be measured and valued in terms of 32.0 hereof.
	10.13 Injury to Persons or loss of or damage to Properties
	(a) The <b>contractor</b> shall be liable for and hereby indemnifies the <b>employer</b> against any liability, loss, claim or proceeding whether arising in common law or by statute, consequent upon personal injuries to or the death of any person whomsoever arising out of or in the course of or caused by the execution of the <b>works</b> unless due to any act or negligence of any person for whose actions the <b>employer</b> is legally liable
	(b) The contractor shall be liable for and hereby indemnifies the employer against any liability, loss, claim or proceeding consequent upon loss of or damage or to any moveable, or immoveable property or personal property or property contiguous to the site, whether belonging to or under the control of the employer or any other body or person, arising out of or in the course of or by reason of the execution of the works unless due to any act or negligence of any person for whose actions the employer is legally liable.
	(c) The <b>contractor</b> shall upon receiving a <b>contract instruction</b> from the <b>principal agent</b> cause the same to be made good in a perfect and workmanlike manner at his own cost and in default thereof the <b>employer</b> shall be entitled to cause it to be made good and to recover the cost therefore from the <b>contractor</b> or to deduct the same from amounts due to the <b>contractor</b> .
	(d) The <b>contractor</b> shall be responsible for the protection and safety of such portions of the premises placed under his control by the <b>employer</b> for the purpose of executing the <b>works</b> until the issue of the <b>certificate of practical completion</b> .

Clause	Amendments	
	<ul> <li>(e) Where the execution of the works involves the risk of removal of or interference with to adjoining properties including land or structures or any structures to be altered or at the contractor shall obtain adequate insurance and will remain adequately insured or to the specific limit stated in the contract against the death of or injury to persons or to such property consequent on such removal or interference with the support until such of the works has been completed.</li> <li>(f) The contractor shall at all times proceed immediately at his own cost to remove or dis</li> </ul>	insured damage portion
	any debris and to rebuild, restore, replace and / or repair such property and execute the  10.14 High Risk Insurance	works.
	·	
	In the event of the project being executed in a geological area classified as a "High Risk Are is an area which is subject to highly unstable subsurface conditions which might recatastrophic ground movement evident by sinkhole or dolomite formation the following will a	esult in
	10.14.1 Damage to the works	
	The contractor shall, from the commencement date of the works until the date certificate of practical completion, bear the full risk of and hereby indemnifies a harmless the employer against any damage to and/or destruction of the consequent upon a catastrophic ground movement as mentioned above. The con shall take such precautions and security measures and other steps for the protectio works as he may deem necessary.	nd hold works tractor
	When so instructed to do so by the <b>principal agent</b> , the <b>contractor</b> shall primmediately to remove and/or dispose of any debris arising from damage to or desto of the <b>works</b> and to rebuild, replace and/or repair the <b>works</b> , at the <b>contractor</b> costs.	truction
	10.14.2 Injury to persons or loss of or damage to property	
	The <b>contractor</b> shall be liable for and hereby indemnifies and holds harmle <b>employer</b> against any liability, loss, claim or proceeding arising at any time durperiod of the contract whether arising in common law or by statute, consequent personal injuries to or the death of any person whomsoever resulting from, arising or caused by a catastrophic ground movement as mentioned above.	ring the nt upon
	The <b>contractor</b> shall be liable for and hereby indemnifies the <b>employer</b> against a all liability, loss, claim or proceeding consequent upon loss of or damage to any mo or immovable property or property contiguous to the <b>site</b> , whether belonging to o the control of the <b>employer</b> or any other body or person whomsoever arising o caused by a catastrophic ground movement, as mentioned above, which occurred the period of construction.	veable, r under ut of or
	10.14.3 It is the responsibility of the <b>contractor</b> to ensure that he has adequate insurance this risk and liability as mentioned in 10.14.1 and 10.14.2. Without limiting the <b>control</b> obligations in terms of the contract, the <b>contractor</b> shall, within twenty one (21) <b>carried days</b> of the <b>commencement date</b> but before commencement of the <b>works</b> submemployer proof of such insurance policy, if requested to do so.	actor's alendar
	10.14.4 The <b>employer</b> shall be entitled to recover any and all losses and/or damages of w nature suffered or incurred subsequent upon the <b>contractor</b> 's default of his obligation set out in 10.14.1, 10.14.2 and 10.14.3. Such losses or damages may be recovered the <b>contractor</b> or by deducting the same from any amounts still due under this corrunder any other contract presently or hereafter existing between the <b>employer</b> contractor and for this purpose all these contracts shall be considered on indivisible	tions as ed from atract or and the
11.0	SECURITY	
	Delete clause 11.1.2. and replace with the following:-	

Clause	Amendments
	11.1.2. The <b>contractor</b> shall furnish the <b>employer</b> with a fixed <b>construction guarantee</b> equal in value to ten per cent (10%) of the <b>contract sum</b> within fifteen (15) <b>working days</b> from the offer of appointment <b>date</b> and keep such <b>security</b> valid and enforceable until the <b>final payment certificate</b> has been issued to the <b>contractor</b> ).
	Or
	Delete clause 11.1.3. and replace with the following:-
	11.1.3 The <b>Contractor</b> shall furnish the <b>employer</b> with a fixed set of five per cent (5%) guarantee of the contract sum and a payment reduction of 5% of the value of each <b>payment certificate</b> up to a maximum of five per cent (5%) of the contract sum [25.3.3]. The <b>contractor</b> shall keep such <b>security</b> valid and enforceable until the <b>final payment certificate</b> has been issued. The <b>contractor</b> could release the retention at any stage of the contract by issuing a further construction guarantee of five percent (5%) of the <b>contract sum</b> .
	Amend clause 11.3 to read as following:
	11.3 Where a <b>contractor</b> fails to provide the <b>security</b> for projects of value less than R5 million, the <b>employer</b> may:
	Amend clause 11.3.1 to read as follows:
	11.3.1 Hand over the site to the <b>contractor</b> and withhold in interim <b>payment certificates</b> to the <b>contractor</b> an amount equal to ten percent (10%) of the <b>contract sum</b> . The amount withheld shall be reduced at <b>practical completion</b> [19.0] to five percent (5%) of the <b>contract sum</b> and to zero percent (0%) in the <b>final payment certificate</b> [25.6]
	Delete Clauses 11.1.4, 11.1.5, 11.2; 11.4; 11.5
	Delete 11.7 and replace with the following
	11.7. A security held by the employer shall be for the due fulfillment of the <b>contractor</b> 's obligation in term of this <b>agreement</b>
	Delete clause 11.10 and replace with the following
	11.10 The <b>Contractor</b> hereby waives, in favour of the <b>Employer</b> , any lien or right of retention that is or may be held in respect of the <b>Works</b> to be executed on the Site.
	Clause 11.0 is amended by adding the following new clauses:
	11.12 Within fifteen (15) working days of the date of final completion of the works the employer shall release all construction guarantees to the contractor.
	11.13 Where the <b>employer</b> has a right of recovery against the <b>contractor</b> , the <b>employer</b> may issue a written demand in terms of the <b>construction guarantee</b> .
	11.14 Construction guarantees shall only expire at final completion date.
	11.15 The <b>Employer</b> , as an Organ of State, shall not be required to provide payment guarantees

# DUTIES OF THE PARTIES Delete clause 12.1.1 Delete clause 12.1.10 Clause 12.0 is further amended by adding the following clauses: 12.4 The contractor shall: 12.4.1 Immediately on award of the contract and prior to the commencement on site, the contractor shall.

12.4.1 Immediately on award of the contract and prior to the commencement on **site**, the **contractor** shall prepare a working **programme** covering the first month of the construction period. This working **programme** shall be prepared in conjunction with the **principal agent** and shall be subject to his approval.

Clause	Amendments
	During the first month of the construction period the <b>contractor</b> shall prepare and draw up the <b>programme</b> for the balance of the <b>works</b> for approval by the <b>principal agent</b>
	12.4.2 This <b>programme</b> shall be drawn up in accordance with the dates in the <b>agreement</b> for possession, sectional completion and <b>practical completion</b> and shall be in sufficient and approved detailto ensure control over the <b>works</b> .
	<b>12.4.3</b> The <b>programme</b> shall be compiled based on the Critical Path Method of Programming with the critical activities clearly highlighted. It shall be compiled in such a way that logic is not constrained by resource limitations unless specifically approved by the <b>principal agent</b> .
	<b>12.4.4</b> Documentation will not be available in complete detail at the commencement stage. However, the <b>contractor</b> , in conjunction with the <b>principal agent</b> , shall progressively plan the <b>works</b> on provisional information available and with sufficient scope to include future detail without disrupting the basic logic initially approved by the <b>principal agent</b> .
	The quantities contained in these <b>bills of quantities</b> are provisional and shall be utilized as a guide only for the drawing up of the <b>programme</b> .
	Where assumptions are made in regard to programming aspects, such assumptions shall be recorded in the <b>programme</b> .
	12.4.5 The <b>programme</b> shall be updated and modified to accommodate a material change in circumstances or whenever reasonably required by the <b>principal agent</b> .
	Any acceleration and/or special measures sanctioned by the <b>principal agent</b> together with associated effects shall be incorporated in a revision to the <b>programme</b> .
	12.4.6 The <b>programme</b> (including each revision thereof) shall be prepared in conjunction with the <b>principal agent</b> and shall be subject to his approval. The approval of the <b>principal agent</b> shall be deemed to be given on the basis that the <b>contractor</b> represents that the <b>programme</b> complies with the requirements of this <b>agreement</b> .
	The <b>contractor</b> shall be responsible at all times for maintaining the accuracy, validity and reasonableness of the <b>programme</b> and the implementation thereof. The fact that a <b>programme</b> has been prepared in conjunction with the <b>principal agent</b> or approved by him shall not release or relieve the <b>contractor</b> from any of his obligations or responsibilities under this <b>agreement</b> . Without derogating from the foregoing, the <b>contractor</b> shall at all times bear the onus to demonstrate that the <b>programme</b> complies with the requirement of this <b>agreement</b> and, where applicable constitute an appropriate baseline <b>programme</b> for any purpose in connection with this <b>agreement</b> .
	12.4.7 The <b>contractor</b> and the <b>principal agent</b> shall, at regular intervals not exceeding one month, assess the state of progress of the <b>works</b> relative to the latest agreed revision of the <b>programme</b> . Such agreement shall include the recording of actual commencement and completion dates for each activity and shall constitute the official record of the progress at such point in time.
	12.4.7 The contractor shall comply with his tendered subcontractors as stipulated in clause 4.6.
	12.5 The contractor shall not remove, cut back or disturb trees and shrubs without a contract instruction from the principal agent. (Specific requirements of the employer must be described)
	12.6 The contractor shall ensure that any relics, treasure or other articles of potential value found on the site remain the property of the employer and shall be handed over to the principal agent who shall be the sole arbiter of what is an article of value.

14.0	NOMINATED SUBCONTRACTORS
	Delete clause 14.1 and replace with the following
	14.1 The <b>principal agent</b> and/or <b>agents</b> , on written instruction from the <b>employer</b> , shall:
	Delete clause 14.1.5
	Amend clause 14.3 to read as follows:-
Clause	Amendments
	14.3 Where such <b>subcontractor</b> is not appointed by the <b>contractor</b> for the reasons stated (14.2), or where the appointment of a <b>subcontractor</b> has been terminated, another <b>subcontractor</b> shall be nominated and be appointed on instruction from the <b>principal agent</b> on written instruction from the <b>employer</b> .
	Amend clause 14.7.1 to read as follows:-
	The <b>principal agent,</b> on written instruction from the <b>employer</b> , shall instruct the <b>contractor</b> to appoint another nominated <b>subcontractor</b> (14.1.4) to complete the n/s subcontract works.
15.0	SELECTED SUBCONTRACTORS
	Amend clause 15.1 to read as follows:-
	The <b>principal agent</b> and/or agents, on written instruction from the <b>employer</b> , shall:
	Clause 15.1.2 deleted and replaced with:
	15.1.2. Call for tenders from a list of tenderers agreed between the <b>contractor</b> , the <b>principal agent</b> and the <b>employer</b>
	15.1.5. Delete
	Amend clause 15.4 to read as follows:-
	15.4. Where such <b>subcontractor</b> is not appointed by the <b>contractor</b> for the reasons stated (15.3), or where the appointment of a <b>subcontractor</b> has been terminated, another <b>subcontractor</b> shall be chosen and be appointed on instruction from the <b>principal agent</b> on written instruction from the <b>employer</b> .
	Amend clause 15.7.1 to read as follows:-
	15.7.1 The <b>contractor</b> shall appoint another selected <b>subcontractor</b> (15.1.4) to complete the n/s subcontract <b>works</b> in consultation with <b>principal agent</b> and/ <b>agents</b> on written instruction from the <b>employer</b>
16.0	Amend clause 16.1.1 by adding the following sub-clause:
	6.1.1.1 The employer will appoint direct contractors for the following direct contract work and the contractor shall be expected to accommodate them in his planning and execution of work:  a)  b)

# Amend Clause 17.0 by adding the following sub clauses under clause 17.1.2 The word "substantially" in the main clause above is qualified by the following four sub clauses: 17.1.2.1 Quantity as per line item in fixed Bill of Quantity of more than 5%. 17.1.2.2. Variation in standards that result in rate adjustment within the BOQ of more than 5% 17.1.2.3. Variation in the design that varies the contract sum by more than 5% 17.1.2.4. Should any of the clauses 17.1.2.1-3 be triggered the employer must be notified within 24 hour of becoming aware of the change in writing. The 5% variance includes the exceeding or reduction of the amount as stated above. Amend clause 17.1.13 to read as follow: 17.1.13 Expenditure of budgetary allowances, prime cost amount and provisional sums will only be allowed with the express, explicit and unique written consent of the employer.

Clause

Amendments

### PRACTICAL COMPLETION 19.0

Amend Clause 19.0 by adding the following clauses:

- 19.4.1. In the event of failure as contemplated in the main clause. The employer reserves the right to issue a practical completion list in excess of the principal agent list or in replacement thereof.
- 19.4.2. No default Practical completion will be deemed to be given, in light of sub clause 19.4.1
- 19.8 Without derogating from the generality of the requirements for practical completion the following specific requirements shall apply:
  - 19.8.1 Defects occurring after the issue of the practical completion list requiring remedial work that will, in the opinion of the principal agent, cause disruption, will cause the issue of the certificate of practical completion to be withheld until such defects have been rectified to the satisfaction of the principal agent.
  - 19.8.2 The following certificates of compliance shall be required (excluding others that may be required by the local/national authority) from the contractor to achieve practical **completion** and completion certificate shall be invalid if one of them is missing:
    - A certificate from the **contractor** that all aspects of the construction regulations of 2003 have been complied with.
    - A certificate from the **contractor** that the National Building Regulations have been complied with
    - c) An occupancy certificate
    - d) occupational Health and Safety certificate
    - e) A certificate of compliance with respect to plumbing and drainage
    - f) An electrical certificate of compliance
    - g) A certificate of compliance with respect to all glazing
    - A certificate of compliance and fire clearance certificate from the contractor and fire chief respectively.
    - i) A galvanizing and painting guarantee.
    - j) All mechanical certificate of compliance.
    - k) All structural certificate of compliance.
    - A palisade certificate of compliance.
    - m) A smoke extraction certificate of compliance.
    - n) A fire signage certificate of compliance.
    - o) A tiling certificate of compliance.
    - p) A waterproofing certificate of compliance.
    - q) A generator guarantee.
    - Commissioning reports r)
    - Maintenance and operational manuals
    - Training of end users on equipment, etc.
    - u) Any other applicable guarantees.
  - 19.8.3 A complete set of maintenance and operating manuals together with all workmanship and material warranties and guarantees are to be compiled and issued to the principal agent prior to practical completion being granted. In addition to the abovementioned documentation, a formal "on site" handover will be required to be conducted with every discipline in the presence of the contractor as well as the applicable services subcontractor.

Delete Clause 19.6 and replace with the following clauses:

19.6 Notwithstanding anything to the contrary contained in the contract, should the **contractor** in the opinion of the principal agent not have achieved practical completion of any area of the works.the employer may, notwithstanding the contractor's ongoing responsibilities, take possession of any such area and such possession by the employer shall not in any way be construed that practical completion has been achieved.

In such event, the principal agent shall give written notice to the contractor that the employer is taking immediate possession of any particular area/s without practical completion having been achieved in order to mitigate the employer's damages and exposure to loss or expense.

Clause	Amendments					
	19.6.1 In the event of the <b>Employer</b> taking occupation of the <b>works</b> or part thereof prior to <b>practical completion</b> being achieved, but on or after the date for <b>practical completion</b> , the <b>employer</b> shall:					
	(a) Have the principal agent issue a practical completion list(s) prior to such occupation					
	<ul> <li>(b) Grant the contractor thereafter all reasonable access to expeditiously attend to the items on the practical completion list(s)</li> </ul>					
	Add clause 19.9 to Clause 19.0 to read as follows:					
	19.8 After the issue of the <b>certificate of practical completion</b> , entry upon the <b>works</b> to make good <b>defects</b> shall be at such reasonable times as shall be agreed by the <b>principal agent</b> .					
	The <b>contractor</b> shall not receive any mark-up for overheads and profit on any omission of tenant installation work or tenant installation work by others. Claims of loss of profit shall not be entertained.					
22.0	LATENT DEFECT LIABILITY PERIOD					
	Amend Clause 22.1 to read as follow:					
	22.1 The latent defect liability period for the works shall commence at the start of the construction period and end 10 years from the certified date of final completion.					
	Amend 22.2.1 to read as follow:					
	22.2.1 Where termination of this agreement occurs before the date of final completion, the latent liability period shall end 10 Years from the date of termination (29.10; 29.23) for the completed por the works only.					
	Delete clause 22.2					
23.0	REVISION OF THE DATE FOR PRACTICAL COMPLETION					
	Amend 23.2 to read as follow:					
	23.2 The <b>contractor</b> is entitled to a revision of the date for <b>practical completion</b> with an adjustment of the <b>contract value</b> (26.0) by the <b>principal agent</b> subject to a written approval from the <b>employer</b> , for a delay to <b>practical completion</b> caused by one or more of the following events:-					
	Amend 23.7 to read as follow:					
	23.7. The <b>principal agent</b> shall, within twenty (20) working days of receipt of the claim, with the written consent of the <b>employer</b> , grant in full, reduce, refuse the working days claimed, and:					

### **PAYMENT** 25.0

Amend 25.1. to read as follow:

25.1 The contractor shall cooperate with and assists the employer and Principal agent in the preparation of the cash flow statement and payment valuation by providing all required document and quantified amount of work duly executed. Where the contractor has not provided such information the principal agent shall make a fair estimate of the work executed.

Amend Clause 25.0 by adding the following sub clauses under clause 25.1:

### Clause Amendments

- 25.1.1. The principal agent shall prepare in full the payment certificate for signature and effect by the employer as stipulated in the contract. No payment certificate will be concluded and effected without the employer's authorized signature on the certificate.
- 25.1.2. No payment certificate will be effected without the employer's authorized signature on the certificate.
- 25.1.3 The **Employer** reserves the right to demand a valid Tax Clearance Certificate prior to making any payment to the Contractor, should it become aware that the tax clearance certificate has expired.
- 25.1.4 The Contractor shall submit the valid Tax Clearance Certificate within fifteen (15) working days or any extended period, from the date of expiry of the Tax Clearance Certificate.

Amend clause 25.4.4 to read as follows:

25.4.4 Default interest, where applicable, shall only be effective after the 30 calendar days from the date of submission of undisputed payment certificate and Contractor Invoice to the employer at the rate of repo rate plus 3%.

25.4.5. Delete

Amend 25.7 to read as follow:

25.7 The Employer shall, in accordance with clause 8.2.3 of the treasury regulation of March 2005, pay to the Contractor the amount certified in an interim payment certificate within thirty (30) calendar days from the date of submission of undisputed payment certificate" to the employer after verification, unless there is an objection of the certificate by the employer. The employer cannot reject a certificate once the employer signs it.

Amend Clause 25.9 by adding the following sub clauses:

- 25.9.1 The **employer** shall only be liable for the payment for materials and/or goods on site if ownership is proven by the contractor (paid in full) and such ownership shall pass on to the employer upon payment.
- 25.9.2 The **employer** shall only be liable for the payment for materials and/or goods offsite if ownership is proven by the contractor (paid in full) and the contractor submits a bank guaranteed cheque of the value of materials and/or goods in favour of the client and such ownership shall pass on to the employer upon payment.

### 26.0 ADJUSTMENT OF THE CONTRACT VALUE AND FINAL ACCOUNT

Add the followings sub clauses to clause 26.1.

- 26.1.1. Upon receipt of the change request, the **Principal Agent** must professionally consider the merits of the change request and make a recommendation to the **employer**.
- 26.1.2. The **Principal Agent** shall not have the power to approve any deviation or variation which has financial implications on the **Employer** without the necessary written approval of the **Employer**, except under emergency circumstances wherein failure to undertake the work may result in loss of life.

Clause	Amendments					
	26.1.3. The <b>Employer</b> must communicate the approval of the change request in writing to the <b>Principal</b>					
	Agent and the Principal Agent shall, upon receipt of confirmation of the change request, issue the					
	necessary Contract Instruction to the contractor to undertake the works.					
	26.1.4. The <b>Contractor</b> shall not commence with any change request Works without proof of the written					
	approval of the Variation Order from the <b>Employer</b> , except under circumstances mentioned in paragraph					
	26.1.2 above.					
	26.1.5 Should the Contractor undertakes the change request Works without the necessary written					
	approval of the change request from the <b>Employer</b> , the <b>Contractor</b> shall be entirely liable for any financial					
	and any related implications and hereby indemnify and hold harmless the <b>Employer</b> from and against any					
	and all claims, actions, damages, liabilities, injuries, costs, fees, expenses, or losses, including and without					
	limitation, reasonable attorney's fees and costs of investigation and litigation, whatsoever which may be					
	incurred by, or for which liability may be asserted against, the <b>Employer</b> arising out of the Contractor's					
	performance or non-performance of unauthorized works, but only to the extent caused by the negligent					
	acts, errors or omissions of the <b>Contractor</b> .					
	26.1.6. The <b>Contractor</b> shall not accept any instructions from any party, including beneficiary Department,					
	other than the <b>Principal Agent</b> .					
	Amend clause 26.7 to read as follow:					
	26.7 The <b>principal agent</b> , in consultation with the employer, shall assess the claim and on approval by the					
	employer, shall adjust the contact value within twenty (20) working days of receipt of such details.					
27.0	RECOVERY OF EXPENSE AND/OR LOSS					
	27.1.4. Delete					
28.0	SUSPENSION BY THE CONTRACTOR					
	Amend clause 28.1. to read as follow:					
	28.1 The <b>contractor</b> may give fourteen (14) Working days' notice to the employer and the <b>principal agent</b>					
	of the intention to suspend the works where the <b>employer</b> and the <b>principal agent</b> have failed to:					
	Add the followings clause to clause 28.0:					
	28.5. The date of resumption of works shall be the date on which the default has been remedied by the					
	employer.					
	- r - / -					

29.0	TERMINATION					
	Clause 29.1.1 is amended by the addition of the following sub-clauses:					
	29.1.1a The <b>contractor</b> refuses or neglects to comply strictly with any of the conditions of contract.					
	29.1.1b The <b>contractor's</b> estate being sequestrated, liquidated or surrendered in terms of the insolvence laws in force with the Republic of South Africa.					
	29.1.1c The <b>contractor</b> , in the judgment of the <b>employer</b> , has engaged in <b>corrupt</b> or <b>fraudulent practices</b> in competing for or in executing the contract.					
Clause	Amendments					
	29.1.1d The <b>contractor</b> fails to perform in terms of the <b>agreement</b> or the <b>employer</b> on reasonable ground believe that the <b>contractor</b> may not be able to comply with his obligation.					
	Amend 29.10 to read as follow:					
	29.10 The latent defect liability period for the completed portion of the works shall end (22.2.1) 10 years					
	from the date of termination.					
	Amend 29.23 to read as follow:					
	29.23 The latent defect liability period for the completed portion of works shall end 10 years from the date					
	of termination (22.2.2).					
30.0	DISPUTE RESOLUTION					
	Delete clauses 30.3, 30.4, 30.5 and 30.6					

### **Contract Agreement**

Clause Number	Contract Agreement							
41.0	41.0	POST TENDER PROVISIO	NS					
	41.1	All information provided in agreement.	this section requires consultation with the parties to the					
	41.2	.2 The completed Contract Data - Employer and Contractor data - Contractor addenda and such other pertinent documents as listed below shall form part of this agreement:						
	41.3	The dispute resolution body	selected by the parties is:					
		THE ASSOCIATION OF S	OUTH AFRICAN ARBITRATORS					
	41.4	The employer shall provide a Payment Guarantee (amount) N/A						
	41.5	An annual building industry	holiday period is applicable (yes/no) YES					
	41.6	Further provisions and infor	mation agreed by the parties:					
42.0	42.0	CONTRACTUAL AGREEM	IENT					
	42.1	2.1 This <b>agreement</b> is the entire (special conditions) contract between the <b>parties</b> regarding the matters addressed herein. No representations, terms, conditions or warranties not contained in this <b>agreement</b> shall be binding on the <b>parties</b> . No agreement or addendum varying, adding to, deleting or terminating this <b>agreement</b> including this clause shall be effective unless reduced to writing and signed by the <b>parties</b> .						
	42.2	Contracting Parties						
	(1)	Employer	: THE INDEPENDENT DEVELOPMENT TRUST					
		Physical Address	: North West Regional Office 4071 Joule Street Industrial Site Mmabatho, 2735					
		Telephone Fax E-mail	: (018) 389 3000 : (086) 656 4152 : permyk@idt.org.za					
		TAX / Vat Registration no	: 458 014 7876					

Clause Number	Cont	ract Agreement			
	(2)	Contractor	:		
		Physical Address	:		
		Telephone Fax E-mail	: : :		
		TAX / Vat Registration no	:		
	42.3	The accepted contract sum	ı (inclusive o	f tax)	
		(In words)			
	42.4				
		Thus done and signed at_			on
		Name of signatory			For and on behalf of the <b>employer</b> who by signature hereof warrants authorization hereto
		Capacity of signatory			As Witness (1)
		Thus done and signed at_			on
		Name of signatory			For and on behalf of the <b>contractor</b> who by signature hereof warrants authorization hereto
		Capacity of signatory			As Witness (2)

Clause Number	Contract Agreement	
	Details of Witness (1)	Details of Witness (2)
	Name:	Name:
	Address:	Address:

### C1.2.1 Special Conditions of Contract

### INTRODUCTION

WHEREAS, the Independent Development Trust ("IDT") made an Offer of Appointment and the Contractor has accepted such appointment subject to the conditions stipulated in the aforesaid Offer of Appointment Letter, which conditions include signing of the JBCC Agreement, Edition 6.2 May 2018 (hereinafter referred to as "Main Agreement") and the Contract Data.

**AND WHEREAS**, this Special Condition of Contract shall form part of the Main Agreement between the Employer and the Contractor.

### a) ADDITIONS TO THE MAIN AGREEMENT AND THE CONTRACT DATA

### 1.1 JOINT VENTURE AGREEMENT

- 1.1.1 Should the Joint Venture Agreement be dissolved or any of the JV partner pull out the JV Agreement for any reasons whatsoever, the Employer hereby reserve its right to terminate the contract with immediate effect.
- 1.1.2 Should one JV partner pull out of the JV agreement and the replacement JV partner does not meet the BBBEE threshold stipulated in clause 5.4 of the Special Condition of the Principal Contract, the IDT shall be entitled to cancel the contract with immediate effect.
- 1.1.3 Should the BBBEE status of the Joint Venture be changed to a lower rate than the bidding rate, based on legislation applicable at the time of tender closing, the IDT shall be entitled to cancel the contract.

### b) SUBCONTRACTING

- 1.1 A service provider awarded the contract may not sub-contract more than 25% of the value of the contract to any other enterprise that does not have an equal or higher BBBEE status level than the person (service provider) concerned, unless the contract is subcontracted to an exempted micro enterprise that has the capability and ability to execute the sub-contract.
- 1.2 Service provider awarded the project shall subcontract not less than 15% of the contract value to Black-owned local firms with preferably women, youth and people with disability

### c) LOCAL ENTERPRISE

Service provider awarded the project shall purchase at least 5% of the materials locally where available.

### d) TRAINING

Service provider awarded the project may train local labour on life skills, on the job and accredited certification in e.g. plumbing etc.

### e) INSURANCES

The contractor shall be responsible for effecting and maintaining the contract works insurance for the full duration of the contract period. The insured amount for the full scope of works shall be 100% of the contract amount. The insured amount shall include for alterations and renovations to existing buildings and shall not reduce in any way despite sectional; completion being taken.

### f) SITE AND ACCESS AND WORKING HOURS

Clauses 16.0, 16.1 and 16.6 amended to read as follows:

"The site of the works is regarded a National Key Point within which the contractor shall have restricted access to the site on being given possession to fulfill his obligations. The contractor shall be briefed on the restrictions of movement, servitudes, access control, buildings in use, security requirements and security clearances, working hours due to the site being occupied and under the employers control at all times. The contractor shall not extend his operations into any restricted or undefined areas.

The contractor shall ensure that all personnel and subcontractors engaged on the contract and those visiting the site have the necessary security clearances prior to such persons being brought on to site. Any persons found to be non-compliant shall not be allowed entry to the site. All costs associated with the verification of personnel to meet this requirement shall be borne by the contractor.

The employer shall have unrestricted and continuous access to the works due to the statutory classification of the site and its operations. This arrangement shall be coordinated and agreed upon by all parties prior to the handover of the site to the contractor. A steering committee comprising representatives of the employer, the principal agent, the contractor and any other nominated or required party shall be set up to ensure that the contractors operations are unhindered.

Work shall be carried out during normal working hours. Any extended times or approval or overtime work shall be considered and approved by the steering committee.

The contractor shall comply with the employers' rules for the control of delivery of materials and goods into the site and for the removal of such items from the site."

### g) PAYMENT OF PRELIMINARY & GENERAL COSTS (P&G)

In the event that the contractor, due to causes of his own making, fails to achieve the targets set out in his construction programme and his performance is not in accordance with the contract, payment of the time related P&G will be paid in proportion to the value of the monthly progress payment and not in accordance with the projected cash flow for this item. The principal agent shall review the status quo and revert to paying the contractor in

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C1.2

accordance with the contract once the contractor has demonstrated improvement of their performance and the principal agent is satisfied that the contractor is performing diligently.

Similarly the full amount of the fixed portion of the P&G will be paid only once the successful contractor has fully complied with deliverables under this section.

### h) FINAL PAYMENT

The employer shall pay to the contractor the amount certified in final payment certificate within thirty (30) calendar days of the date of issue of the payment certificate or the contractors tax invoice whichever is the later date.

### i) AMBIGUITY OR DISCREPANCY

If any ambiguity or discrepancy in any of the documents forming part of the contract is found, then the contract data and or amendments herein shall prevail in cases of conflict between any of the documents.

all risks insurance - especially with the current weather conditions - we need to ensure that all contracts are insured.

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Tender
Part C1: Agreement and Contract Data
DOE14NWER015A

C1.2 Contract Data

SIGNATURE OF THE PARTIES				
Signed at Pretoria on this the day of				
AS WITNESSES:				
1				
	For and on behalf of the <b>Employer:</b>			
	in his/her capacity as Acting Regional General Manager			
2	For and on behalf of the <b>Employer:</b>			
	in his/her capacity as the Programme Manager.			
Signed at Pretoria on this the day of	2024			
AS WITNESSES:				
1				
3.				
	For and on behalf of the <b>Service</b> provider:			
	in his/her capacity as Director, who hereby confirm that he/she is duly authorized hereto.			

### **C1.3 FORM OF GUARANTEE**

### **C1.3 FORM OF GUARANTEE**

BID DATA FOR APPOINTMENT OF A CONTRACTOR FOR THE DEMOLITION OF ASBESTOS STRUCTURES AND CONSTRUCTION OF NEW HOSTELS FOR MOEDWIL COMBINED SCHOOL IN BOJANALA DISTRICT FOR THE DEPARTMENT OF EDUCATION, NORTH WEST PROVINCE.

Contract No.: DOE14NWER015A

entered into, a Contract with				
entered into, a Contract with				
20for the construction				
of	at			
AND WHEREAS it is provided by such Contract that the Contractor shall provide th security byway of a guarantee for the due and faithful fulfilment of such Contract by				
AND WHEREAS				
has/have at the request of the Contractor, agreed to give such guarantee;				
NOW THEREFORE WE,	_			

do hereby guarantee and bind ourselves jointly and severally as Guarantor and Co-principal Debtors to the Employer under renunciation of the benefits of division and excussion for the due and faithful performance by the Contractor of all the terms and conditions of the said Contract, subject to the following conditions:

- 1. The Employer shall, without reference and/or notice to us, have complete liberty of action to act in any manner authorized and/or contemplated by the terms of the said Contract, and/or to agree to any modifications, variations, alterations, directions or extensions of the Completion Date of the Works under the said Contract, and that its rights under this guarantee shall in no way be prejudiced nor our liability hereunder be affected by reason of any steps which the Employer may take under such Contract, or of any modification, variation, alterations of the Completion Date which the Employer may make, give, concede or agree to under the said Contract.
- 2. This guarantee shall be limited to the payment of a sum of money
- 3. The Employer shall be entitled, without reference to us, to release any guarantee held by it, and to give time to or compound or make any other arrangement with the Contractor.
- 4. This guarantee shall remain in full force and effect until the issue of the Certificate of Completion in terms of the Contract, unless we are advised in writing by the Employer before the issue of the said

Certificate of his intention to institute claims, and the particulars thereof, in which event this guarantee shall remain in full force and effect until all such claims have been paid or liquidated.

5. Our total liability hereunder shall n	ot exceed the sum of (not exceeding 10	% of the Contract Sum) in
	(R	)
	withdraw from this guarantee by depositi Guarantor's liability hereunder shall ceas	
We hereby choose our address for the	ne serving of all notices for all purposes	arising here from as
IN WITNESS WHEREOF this guarar	•	
on this	day of	20
As witnesses:		
1	_Signature	
2	_Signature	
Duly authorized to sign on behalf of		
Address	· · · · · · · · · · · · · · · · · · ·	<u> </u>

**C1.4 ADJUDICATOR'S AGREEMENT** 

### C1.4: Adjudicator's Agreement

This agreement is made on theday ofday of	
(name of company / organisation)	
of (address)	
and the Contracto	r
(name of company / organisation)of	
(address)	
(hereinafter	
called the Parties)	
and	
(name)	
of (address)	
(hereinafter	
called the Adjudicator	
Disputes or differences may arise/have arisen* between the Parties under a Contract No	
for <i>(contract title)</i> and these disputes or differences shall be/have been* referred to adjudication in accordance with th CIDB Adjudication Procedure, (hereinafter called " <b>the Procedure</b> ") and the Adjudicator may be or habeen requested to act. (* Delete as necessary)	

### IT IS NOW AGREED as follows:

- 1. The rights and obligations of the Adjudicator and the Parties shall be as set out in the Procedure.
- 2. The Adjudicator hereby accepts the appointment and agrees to conduct the adjudication in accordance with the Procedure.
- 3. The Parties bind themselves jointly and severally to pay the Adjudicator's fees and expenses in accordance with the Procedure as set out in the Contract Data.
- 4. The Parties and the Adjudicator shall at all times maintain the confidentiality of the adjudication and shall endeavour to ensure that anyone acting on their behalf or through them will do likewise, save with the consent of the other Parties which consent shall not be unreasonably refused.
- 5. The Adjudicator shall inform the Parties if he intends to destroy the documents which have been sent to him in relation to the adjudication and he shall retain documents for a further period at the request of either Party.

# 6. SIGNED by: (Signature): (Si

Witness: (Signature):	Witness: .(Signature):	Witness: (Signature):
Name:	.Name:	Name:
Address:	.Address:	Address:
		Date:

# C1.5: AGREEMENT IN TERMS OF SECTION 37(2) OF THE OCCUPATIONAL HEALTH AND SAFETY ACT No 85 OF 1993

Refer Overleaf:

# C.1.5 AGREEMENT IN TERMS OF SECTION 37(2) OF THE OCCUPATIONAL HEALTH AND SAFETY ACT No 85 OF 1993

THIS AGREEMENT is made between Independent Development trust represented by the Supply Chain Management. (hereinafter called the EMPLOYER) of the one part, herein represented by:
in his capacity as:;
AND:
(hereinafter called the CONTRACTOR) of the other part, herein represented by
in his capacity as:
duly authorized to sign on behalf of the Contractor.

**WHEREAS** the CONTRACTOR is the Mandatary of the EMPLOYER in consequence of an agreement between the CONTRACTOR and the EMPLOYER in respect of:

**TENDER: APPOINTMENT** 

BID DATA FOR APPOINTMENT OF A CONTRACTOR FOR THE DEMOLITION OF ASBESTOS STRUCTURES AND CONSTRUCTION OF NEW HOSTELS FOR MOEDWIL COMBINED SCHOOL IN BOJANALA DISTRICT FOR THE DEPARTMENT OF EDUCATION, NORTH WEST PROVINCE.—BID NUMBER: DOE14NWER015A

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

**NOW THEREFORE** the parties agree as follows:

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

above, which steps may include, but shall not be limited to, the right to inspect any appropriate site or premises occupied by the CONTRACTOR, or to take such steps the EMPLOYER may deem necessary to remedy the default of the CONTRACTOR at the cost of the CONTRACTOR.

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

Thus signed at	for and on behalf of the CONTRACTOR
on this the day of	20
SIGNATURE:	
NAME AND SURNAME:	
CAPACITY:	
WITNESSES: 1	
2	
Thus signed at	for and on behalf of the <b>EMPLOYER</b> on this
the day of	20
SIGNATURE:	
NAME AND SURNAME:	
CAPACITY:	
WITNESSES: 1	
2	

### C1.6 Waiver of Lien

Refer Overleaf:



## **Waiver of Contractor's Lien**

for use with the JBCC Principal Building

### or JBCC Minor Works Agreements

DEFINITIONS	
Contractor	
Employer	
Agreement(Principal Building Agreement or Minor Works Agreement)	
Works (description)	
Site	
(property title deed description)	
AGREEMENT	
The Contractor waives, in favour of the Employ respect of the Works to be executed on the Site	yer, any lien or right of retention that is or may be held in
This waiver shall only come into effect on provi of his obligations in terms of the identified Agree	sion by the Employer of a Payment Guarantee for fulfilment ement
Thus done and signed at	on
Name of signatory	Capacity of signatory
As witness	For and on behalf of the Contractor who by signature hereof warrants authorisation hereto
	IPCC Sovies 2000 • Code 2121 July 2007

**C2: PRICING DATA** 

**C2.1 PRICING INSTRUCTIONS** 

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Tender C2.2
Part C2: Pricing Data Eills of Quantities

### **C2: PRICING DATA**

### **C2.1 Pricing Instructions**

- 1. The Bills of Quantities have been drawn up in accordance with the Standard System of Measuring Building Work (as amended) published and issued by the Association of South African Quantity Surveyors (Seventh Edition Revised), 2015. Where applicable the:
  - a) Civil engineering work has been drawn up in accordance with the provisions of the latest edition of SABS 1200 Standardized Specifications for Civil Engineering Works.
  - b) Mechanical work has been drawn up in accordance with the provisions of the Model Bills of Quantities for Refrigeration, Air-Conditioning and Ventilation Installations, published by the South African Association of Quantity Surveyors, July 1990).
  - electrical work has been drawn up in accordance with the provisions of the Model Bills of Quantities for Electrical Work, published by the South African Association of Quantity Surveyors, (July, 2005).
- The agreement is based on the JBCC Series 2000 Principal Building Agreement, prepared by the Joint Building Contracts Committee, Edition 6.2, May 2018. The additions, deletions and alterations to the JBCC Principal Building Agreement as well as the contract specific variables are as stated in the Contract Data. Only the headings and clause numbers for which allowance must be made in the Bills of Quantities are recited.
- Preliminary and general requirements are based on the various parts of the JBCC Series 2000 Preliminaries as prepared by the Joint Building Contracts Committee, Edition 6.2, May 2018. The additions, deletions and alterations to the various parts of the JBCC Series 2000 Preliminaries as well as the contract specific variables are as stated in the Specification Data in the Scope of Work. Only the headings and clause numbers for which allowance must be made in the Bills of Quantities are recited.
- It will be assumed that prices included in the Bills of Quantities are based on Acts, Ordinances, Regulations, By-laws, International Standards and National Standards that were published 28 days before the closing date for BIDs. (Refer to <a href="www.stanza.org.za">www.stanza.org.za</a> or <a href="www.stanza.org.za">www.iso.org</a> for information on standards).
- The prices and rates in these Bills of Quantities are fully inclusive prices for the work described under the items. Such prices and rates cover all costs and expenses that may be required in and for the execution of the work described in accordance with the provisions of the Scope of Work, and shall cover the cost of all general risks, liabilities, and obligations set forth or implied in the Contract Data, as well as overhead charges and profit. These prices will be used as a basis for assessment of payment for additional work that may have to be carried out.

Contract

BID No: BID No: DOE14NWER015A - CONTRACTOR

Addendum A Occupational Health and Safety Regulations

- 6. The drawings listed in the Scope of Works used for the setting up of these Bills of Quantities are kept by the quantity surveyor and can be viewed at any time during office hours up until the completion of the works.
- 7 Reference to any particular trademark, name, patent, design, type, specific origin or producer is purely to establish a standard for requirements. Products or articles of an equivalent standard may be substituted.
- 8 The rates contained in the Bills of Quantities will apply irrespective of the final quantities of the different classes and kinds of work actually executed.
- 9 Rates for work of similar description occurring in different sections of the Bills of Quantities shall be identical.
- An item against which no price is entered will be considered to be covered by the other prices or rates in the Bills of Quantities. A single lump sum will apply should a number of items be grouped together for pricing purposes.
- Where any item is not relevant to this specific contract, such item is marked N/A (signifying "not applicable")
- 12 The Contract Data and the standard form of contract referenced therein must be studied for the full extent and meaning of each and every clause set out in Section 1 (Preliminary and General) of the Bills of Quantities
- The Bills of Quantities is not intended for the ordering of materials. Any ordering of materials, based on the Bills of Quantities, is at the Contractor's risk.
- 14 The amount of the Preliminary and General Section to be included in each monthly payment certificate shall be assessed as an amount prorated to the value of the work duly executed in the same ratio as the preliminaries bears to the total of prices excluding any contingency sum, the amount for the Preliminary and General Section and any amount in respect of contract price adjustment provided for in the contract.
- Where the initial contract period is extended, the monthly charge shall be calculated on the basis as set out in 14 but taking into account the revised period for completing the works.
- The amount or items of the Preliminary and General Section shall be adjusted to take account of the theoretical financial effect which changes in time or value (or both) have on this section. Such adjustments shall be based on adjustments in the following categories as recorded in the Bills of Quantities:
  - a) an amount which is not to be varied, namely Fixed (F)
  - b) an amount which is to be varied in proportion to the contract value, namely Value Related (V); and
  - an amount which is to be varied in proportion to the contract period as compared to the initial construction period excluding revisions to the construction period for which no adjustment to the contractor is not entitled to in terms of the contract, namely Time

Contract Addendum A
Occupational Health and Safety Regulations

### Related (T).

- Where no provision is made in the Bills of Quantities to indicate which of the three categories in 12 apply or where no selection is made, the adjustments shall be based on the following breakdown:
  - a) 10 percent is Fixed;
  - b) 15 percent if Value Related
  - c) 75 percent is Time Related.
- The adjustment of the Preliminary and General Section shall apply notwithstanding the actual employment of resources in the execution of the works. The contract value used for the adjustment of the Preliminary and General Section shall exclude any contingency sum, the amount for the Preliminary and General Section and any amount in respect of contract price adjustment provided for in the contract. Adjustments in respect of any staged or sectional completion shall be prorated to the value of each section.
- 19 All work is to be constructed using labor-intensive methods. The use of plant to provide such works, other than plant specifically provided for in the scope of works, is a variation order to the contract
- 20 Payment for items, which are designated to be constructed under labour-intensively, will not be made unless they are constructed using labor-intensive methods. Any unauthorized use of plant to carry out work which was to be done labour-intensively will not be condoned and any works so constructed will not be certified for payment.
- 21 The bidder is to acquaint himself as to the specific requirements of this BID as contained in additional clauses B15 of the JBCC Principal Agreement as incorporated in the Contract Data. These clauses may be priced under the relevant Preliminaries items in SECTION C: SPECIFIC PRELIMINARIES of the Preliminaries Bill. No claim will be entertained due to the failure of the bidder to allow for these requirements
- The contractor shall determine the contract skills participation goals, expressed in Rand, which shall not be less than the contract amount multiplied by a percentage factor given in Table 2 in the Standard for the applicable class of construction works. This is indicated by the percentage factor in the Final Tender Summary section. Minimum Contract Skills Development Goal (CSDG) sum = General Building GB (0.50%) x Subtotal of the tender amount

Contract

Addendum A
Occupational Health and Safety Regulations

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

Class of construction works as identified in terms of Regulation 25(3) of the Construction Industry Regulations 2004		Construction skills development goal (CSDG) (%)
Designation	Description	
CE	Civil engineering	0.25
CE and GB	Civil engineering and General Building	0.375
EE	Electrical Engineering works (buildings)	0.25
EP	Electrical Engineering works (Infrastructure)	0.25
GB	General Building	0.5
ME	Mechanical Engineering works	0.25
SB	Specialist	0.25

Example 1: The contract amount for an engineering and construction works contract in the GB class of construction works is R65,7m. The contract skills development goal in Rands is R65,7m x 0.5% = R328 500.

The Employer shall determine the amount to be paid to the Enterprise Development Co-Ordinator for the Contract Participation Goal (CPG) on the contract and this amount shall be stated under the section Enterprise Development as a Provisional Sum in the Preliminaries and Generals (P&G's).

The contractor shall be paid as follows: These are recommended rates, client may change depending on the location of the project, complexity etc.). These rates must be stated by the client in the P&Gs so that all tenderers have the same rate and not result in a tenderer being disadvantaged.

Needs analysis and enterprise development plan per Targeted Enterprise - R5000.00 (five thousand rands) per targeted enterprise.

Mentoring and interim reporting per Targeted Enterprise - R20 000.00 (twenty thousand rands) per quarter; and

Project completion report per Targeted Enterprise - R5000.00 (five thousand rands) per targeted enterprise.

# 24 Payment to the contractor to accommodate Part/Full Occupational qualification and Trade qualifications

The employer shall include the following statement in the pricing assumptions:

The contractor shall apportion the learners in the different construction activities based on the scope of work. The cost of accommodating learners will be determined by using Table 3 in the Standard and this cost will be used to determine the value in Rand and will be added

to the provision for training as provided for in the Preliminary and General section in the Bill of Quantities/Pricing schedules/Activity schedule.

Contract Addendum A
Occupational Health and Safety Regulations

# 25 Payment to the contractor for supervision and mentoring Part/Full Occupational qualification and Trade qualifications learners

The employer shall make no provision for an additional payment item for the payment of the supervisor and/or mentors for the provision of training as provided for in the Preliminary and General section in the Bill of Quantities/Pricing schedules/Activity schedule for the training of part/full time occupational learners and/or trade qualification learners.

Contract Addendum A
Occupational Health and Safety Regulations

### **C2.2 BILL OF QUANTITIES**

Addendum A Occupational Health and Safety Regulations Contract

### C3 Scope of Work

### **DESCRIPTION OF THE WORKS**

### 1.1 Employer's objectives

The primary objective of the employer is to appointment of a contractor for the demolition of asbestos structures and construction of New Hostels at Moedwil Combined School.

The scope of works comprises the demolition of asbestos structures, construction of 4x boys and 5x girls' hostels, Construction of 4x Staff Houses, Hostel Administration block, 2x Guard Houses, Hostel Master & Mother Houses and construction of other facilities and external works.

The employer may include the following statement in the tender documents should the employer wish to have specific training carried out as an objective of the project:

One of the objectives of the project is to training ether of the following: (occupational qualifications, trade qualification, work integrated learners – P1 and P2 learners, professional candidates)

The objective of the project is to provide for a minimum contract participation goal (CPG) of 5% of the total project value and to develop targeted enterprise by the main or lead partner contractors.

### The Contractor shall:

- Subcontract a minimum of 5% of the total project value to targeted enterprises;
- Perform needs analysis on the targeted enterprise to identify developmental goals;
- Provide internal mentorship support to improve the targeted enterprise/s performance;
- Develop a project specific enterprise development plan to improve the targeted enterprise/s performance in the identified developmental areas to the CIDB Competence Standard for Contractors Gazette No. 41237, 10 November 2017
- Monitor and report the progress of the agreed development areas with the targeted enterprise/s
- Submit a project completion report to the Employer's representative for each targeted enterprise.

The Contractor shall provide opportunities to learners requiring structured workplace learning using one or a combination of any of the Skills Methods as agreed: accommodate Part/Full Occupational qualification (Method 1), Trade qualifications learners (Method 2),train Work Integrated Learners - P1 and P2 Learners (Method 3) and/or Professional Candidates (Method 4) as indicated in the CIDB Standard and as agreed to by the Employer on this project (Employer to stipulate)

The Contractor may only place 33% employees employed by him/her or that of his/her subcontractor contributing to the CSDG.

Contract

Addendum A **Occupational Health and Safety Regulations** BID No: BID No: DOE14NWER015A - CONTRACTOR

The Contractor shall achieve the measurable CSDG by providing opportunities to learners requiring structured workplace learning using one or a combination of any of the Skills Methods as agreed: accommodate Part/Full Occupational qualification (Method 1), Trade qualifications learners (Method 2), Work Integrated Learners (Method 3) and/or Candidates (Method 4) as per the CIDB Standard in relation to work directly related to the Contract as indicated under clause 4.2 and 4.3 in the CIDB Standard. (Employer to stipulate).

The Contractor shall ensure that all beneficiaries of the Standard are registered with CIDB Skills Development Agency (SDA).

The Contractor shall be responsible for developing subcontractors in accordance with the CIDB Standard for Indirect Targeting for Enterprise Development.

The Contractor shall be responsible for the appointment of the Enterprise Development Coordinator.

1.2 The scope of works comprises the demolition of asbestos structures, construction of 4x boys and 5x girls' hostels, Construction of 4x Staff Houses, Hostel Administration block, 2x Guard Houses, Hostel Master & Mother Houses and construction of other facilities and external works.

#### 1.3 Location of the works

Moedwil School:

The project is located at Moedwil in Bojanala Platinum District Municipality, North West Province. Site Coordinates: Latitude. **25.63129**"S and **26.9715**"E

To be communicated to the winning Bidder before construction commences

#### 2 DRAWINGS

- Architect Annexured to the Tender Document
- Civil & Structural Engineer Annexured to the Tender Document
- Electrical Engineer Annexured to the Tender Document
- Mechanical Engineer Annexured to the Tender Document

#### 3 Subcontracting

3.2

#### 3.2.1 Scope of mandatory subcontract work

As per the mandatory sub-contracting clause, the Contractor must not sub-contract more

Contract Addendum A
Occupational Health and Safety Regulations

than 25%, 10% of which should be allocated to the IDT CDP contractors between 1GB and 4GB (list per cluster will be provided upon appointment).

The Contractor shall without delay enter into contracts with the Domestic Subcontractors as submitted on the returnable schedule and forward a copy of these agreements to the Principal Agent. The Contractor shall remain responsible for providing the subcontracted portion of the works as if the work had not been subcontracted.

The Contractor to take note of item 3.2.2 below

#### 3.2.2 Preferred subcontractors / suppliers

#### 3.2.3 Subcontracting procedures

See items 3.2.1 and 3.2.2 as well as BID data

#### 3.2.4 Attendance on subcontractors

Attendance to Domestic Sub-contractors as stated above should be priced under the relevant items in the Preliminaries section of the bills of quantities. Attendance to nominated sub-contractors should be priced under the relevant items in the Provisional Sums section of the bills of quantities.

#### 4 CIDB B.U.I.L.D. Programme

The contractor must comply with the Department of Public Works and Infrastructure General Notice 1779 of 2023 as per Construction Industry Development Board (CIDB) for achieving the standards for delivery skills for infrastructure contracts 31 March 2023.

#### 5. MANAGEMENT

#### 5.1 Recording of weather

The Contractor shall erect an effective rainfall gauge on the site and record the daily rainfall figures in a book. Such book shall be handed to the employer's representative for his signature no later than 12 days after rain that is considered to justify an extension of time occurs.

#### 5.2 Unauthorized persons

The Contractor shall keep unauthorized persons from the works at all times. Under no circumstances may any person except guards be allowed to sleep on the building site.

#### 5.3 Management meetings

The Employer's Representative and the Contractor shall hold meetings relating to the progress of the works at regular intervals and at other such times as may be necessary. The Contractor shall attend all site meetings and shall ensure that all persons under his jurisdiction are notified timeously of all site meetings should the Employer's Representative require their attendance at such meetings.

Contract Addendum A
Occupational Health and Safety Regulations

The Contractor shall keep on site a set of minutes of all site meetings, daily records of resources (people and equipment employed), a site instruction book, a complete set of contract working drawings and a copy of the procurement document and make these available at all reasonable times to all persons concerned with the contract.

#### 5.4 Forms for contract administration

BID No: BID No: DOE14NWER015A - CONTRACTOR

The Contractor shall be required to submit an updated contractor monthly report during site meetings, which will be used by the consultant to update the client.

#### 5.5 Payment certificates

The Contractor to ensure that the VAT invoice required with each certificate is delivered timeously. The date of the certificate will be that of the date when the certificate is received by the consultant.

The Contractor to ensure timeous submission of all required documentation for the expedient processing of payment certificates, as required by the client, e.g. BAS entity forms, company registration details, VAT clearance certificates, etc. The Contractor is responsible for such documentation submission.

#### 5.6 Addenda

Contract Addendum A
Occupational Health and Safety Regulations

#### INDEPENDENT DEVELOPMENT TRUST

#### BID DATA FOR .- BID NUMBER: DOE14NWER015A

#### **C4 Site Information**

#### **MOEDWIL COMBINED SCHOOL**

PROJECT NAME	LOCATION	LATITUDE	LONGITUDE
MOEDWIL COMBINED SCHOOL	Rietfontein 394 JP	25.63129"S	26.9715"E

Contract

## **ADDENDUM A**

#### **Occupational Health and Safety Regulations**

GOVERNMENT NOTICE

**DEPARTMENT OF LABOUR** 

**OCCUPATIONAL HEALTH AND SAFETY ACT, 1993** 

# CONSTRUCTION REGULATIONS, 2014

The Minister of Labour has under section 43 of the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993), after consultation with the Advisory Council for Occupational Health and Safety, made the regulations in the Schedule.

Contract

**BID No: BID No: DOE14NWER015A - CONTRACTOR** 

Addendum A Occupational Health and Safety Regulations

#### ADDENDUM A

#### OCCUPATIONAL HEALTH AND SAFETY ACT, 1993 Regulation 3 of the Construction Regulations, 2014

#### NOTIFICATION OF CONSTRUCTION WORK

1.(a)	Name and postal address of principal contractor:
(b)	Name and tel. no of principal contractor's contact person:
Р	rincipal contractor's compensation registration number:
3.(a)	Name and postal address of client:
(b)	Name and tel no of client's contact person or agent:
4.(a)	Name and postal address of designer(s) for the project:
(b)	Name and tel. no of designer(s) contact person:
5.	Name and telephone number of principal contractor's construction supervisor on site appointed in terms of regulation 6.(1).
6. N	ame/s of principal contractor's sub-ordinate supervisors on site appointed in terms of regulation 6.(2).
7.	Exact physical address of the construction site or site office:
8.	Nature of the construction work:
9.	Expected commencement date:
10.	Expected completion date:
11.	Estimated maximum number of persons on the construction site.
12. F	

13.	Name(s) of contractors already chosen.		
			_
			_
_			
Prin	cipal Contractor		Date
Clie	nt		Date

- THIS DOCUMENT IS TO BE FORWARDED TO THE OFFICE OF THE DEPARTMENT OF LABOUR <u>PRIOR</u> <u>TO COMMENCEMENT</u> OF WORK ON SITE.
- ALL PRINCIPAL CONTRACTORS THAT QUALIFY TO NOTIFY MUST DO SO EVEN IF ANOTHER PRINCIPAL CONTRACTOR ON THE SAME SITE HAD DONE SO PRIOR TO THE COMMENCEMENT OF WORK.

Contract

Addendum A Occupational Health and Safety Regulations

## **ADDENDUM B**

#### **Occupational Health and Safety Specification**

APPOINTMENT OF A CONTRACTOR FOR THE DEMOLITION OF ASBESTOS STRUCTURES AND CONSTRUCTION OF NEW HOSTELS FOR MOEDWIL COMBINED SCHOOL IN BOJANALA DISTRICT FOR THE DEPARTMENT OF EDUCATION, NORTH WEST PROVINCE.

#### INDEPENDENT DEVELOPMENT TRUST

(Hereinafter referred to as the Employer)

#### OCCUPATIONAL HEALTH AND SAFETY SPECIFICATION

This specification shall be used in conjunction with all other applicable safety specifications, legislation and regulations in force at the time of the contract. Where unique site specifications are in force, those site specifications shall take precedence over this Specification.

The Independent Development Trust (IDT) 4071 Joules Street Industrial Site Mahikeng 2745

Contract Addendum B

Occupational Health and Safety Specification BID No: BID No: DOE14NWER015A - CONTRACTOR

#### **ADDENDUM "A"**

PRO-FORMA AGREEMENT IN TERMS OF OCCUPATIONAL HEALTH AND SAFETY ACT 1993

Contract Addendum B

Occupational Health and Safety Specification BID No: BID No: DOE14NWER015A - CONTRACTOR

PRO-FORMA AGREEMENT IN TERMS OF

OCCUPATIONAL HEALTH AND SAFETY ACT 1993 – SECTION 37 (2)

**NEW CONSTRUCTION SAFETY REGULATIONS** 

The above-mentioned regulations were promulgated in the Govt. Gazette on Friday, 18 July 2014

under the Occupational Health & Safety Act (85 of 1993) and are now in force.

The Employer and the Contractor hereby agree, in terms of the provisions of Section 37(2) of the

Occupational Health and Safety Act 1993 (Act 85 of 1993, hereinafter referred to as the Act), that

the following arrangements and procedures shall apply between them to ensure compliance by

the Contractor with the provisions of the Act, namely:

(a) The Contractor undertakes to acquaint the appropriate officials and employees of

the Contractor with all the relevant provisions of the Act and the regulations promulgated in terms of the Act, and the Employer's Health and Safety

Specifications included in the contract documents.

(b) The Contractor undertakes that all relevant duties, obligations and prohibitions

imposed in terms of the Act and Regulations and the Employer's Health and Safety

Specifications included in the contract documents will be complied with in all

respects.

(c) In relation to any work or activity performed by the Contractor, his workmen or any

other person for whose acts or omissions the Contractor is responsible in terms of

the Contract, the Contractor hereby accepts sole liability for such due compliance

with the relevant duties, obligations and prohibitions imposed by the Act and

Regulations and expressly absolves the Employer from itself being obliged to

comply with any of the aforesaid duties, obligations and prohibitions.

(d) The Contractor agrees that any duly authorised officials of the Employer shall be

entitled, although not obliged, to take such steps as may be necessary to ensure

that the Contractor has complied with his undertakings as set out more fully in

paragraphs (a) and (b) above, which steps may include, but will not be limited to,

Contract Addendum B

Occupational Health and Safety Specification

the right to inspect any appropriate site or premises occupied by the Contractor, or to inspect any appropriate records held by the Contractor.

- (e) The Contractor shall be obliged to report forthwith in writing to the Representative/Agent full details of any investigation, complaint or criminal charge which may arise as a consequence of the provisions of the Act and Regulations, pursuant to work performed in terms of this Contract.
- (f) Forward "safety meeting" minutes to the representative/Agent.

For the Employer:	Date:
Witnesses: 1) :	2)
For the Contractor:	Date:
Witnesses: 1) :	2)

Contract Addendum B

#### **ADDENDUM "B"**

#### NOTIFICATION OF CONSTRUCTION WORK

Contract Addendum B

Occupational Health and Safety Specification BID No: BID No: DOE14NWER015A - CONTRACTOR

## NOTIFICATION OF CONSTRUCTION WORK

(Regulation 3 of the Construction Regulations, 2014)

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1.	CUN	IDA	-	חי

Contra	act	Addendum B
	2.2	Name and telephone number of Employer's Principal Agent:
	2.1	Name and postal address of Employer:
2.	EMPL	OYER
	1.6	Estimated number of Subcontractors on the construction site accountable to the Contractor:
	1.5	Estimated number of persons on the construction site:
	1.5	Physical address of the construction site or site office:
	1.4	Name and telephone number of Contractor's Construction Supervisor :
	1.3	Contractor's compensation registration number :
	1.2	Name and telephone number of Contractor's contact person :
	1.1	Name and postal address of Contractor:

Occupational Health and Safety Specification

BID No: BID No: DOE14NWER015A - CONTRACTOR

	DESIGN CON	ISULTANTS
3.1	Name and posta	al address of OHS consultants:
	3.1.1	Occupational Health and Safety
		To be advised
	3.1.2	Other (if any):
	3.2 Name an	d telephone number of design consultant's contact person:
	3.2.1	Construction project managers/ Principal Agent:
	3.2.2	Architects:
	3.2.3	Structural engineer :
	3.2.4	Electrical engineer:
	3.2.5	Mechanical engineer:
	3.2.6	Civil engineer:
	327	Other (if any):

Contract Addendum B

BID No: BID No: DOE14NWER015A - CONTRACTOR

3.

# Nature of the works: Commencement date: Completion date: Contractor: Date: Employer: Date:

4.

THE WORKS

THIS DOCUMENT IS TO BE FORWARDED TO THE OFFICE OF THE DEPARTMENT OF LABOUR **PRIOR TO COMMENCEMENT** OF WORK ON SITE.

ALL CONTRACTORS THAT QUALIFY TO NOTIFY MUST DO SO EVEN IF ANOTHER CONTRACTOR ON THE SITE HAD DONE SO PRIOR TO THE COMMENCEMENT OF WORK.

Contract Addendum B

Addendum C

## **ADDENDUM C**

## **Environmental Management Plan**

TO BE PROVIDED BY THE SUCCESSFUL BIDDER

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Addendum C Environmental Management Plan

Addendum I

## **ADDENDUM I**

**Drawings** 

## **ADDENDUM J**

## **IDT Addendum to the JBCC**



## **ADDENDUM**

To the

# THE JBCC PRINCIPAL BUILDING AGREEMENT

NAME OF PROJECT:	

INTRODUCTION

WHEREAS, the Independent Development Trust ("IDT") made an Offer of Appointment and the

Contractor has accepted such appointment subject to the conditions stipulated in the aforesaid

Offer of Appointment Letter, which conditions include signing of the JBCC Agreement, Edition

...... (hereinafter referred to as "Main Agreement").

AND WHEREAS, this addendum shall form part of the Main Agreement between the Employer

and the Contractor.

1. ADDENDUM TO THE MAIN AGREEMENT

> 1.1 This Agreement will constitute an Addendum to the Main Agreement as contemplated

herein:

The Terms of Reference, Accepted Proposal or BID, Standard Conditions of BID, Special 1.2

Conditions of BID and adjusted Priced Bills of Quantities shall form part of the agreement

between the Contractor and the Employer;

1.3 This Addendum will be deemed to incorporate, with or without variation, all the provisions

of the Main Agreement, unless the context clearly requires otherwise;

1.4 All words and phrases used in this Addendum which are defined in the Main Agreement,

will bear the same meaning assigned to them in the Main Agreement; and

All references in the Main Agreement to "the/this Agreement" itself, will be deemed to be 1.5

references also to the Main Agreement duly amended by this Addendum.

**Interpretations and Definition** 1.6

1.6.01 Financial Implications shall means the variation amount over and above the

awarded contract sum.

2. **SPECIAL CONDITION** 

If there is any conflict between the contents or any part of this Addendum and the contents

or any part of the Main Agreement and other annexures, the content of this Addendum

shall prevail.

3. **WAIVER OF CONTRACTOR'S LIEN** 

> 3.1 The Contractor hereby waives, in favour of the Employer, any lien or right of

retention that is or may be held in respect of the Works to be executed on the Site.

3.2 The Employer, as an Organ of State, shall not be required to provide payment

guarantees.

**ASSIGNMENT OF RIGHTS OR OBLIGATIONS** 4.

> 4.1 Neither party shall assign or cede rights or obligations without the written consent

of the other party, which consent shall not be unreasonable withheld.

4.2 Where the Contractor intend to cedes any right to monies due or to become due

under this agreement as security in favour of a financial institution, a written

consent in accordance with clause 4.1 above, shall be obtained from the Employer

prior to entering into such cession.

4.3 Any cession entered into without the necessary written consent from the either

party, shall be null and void.

4.4 The Employer shall not consent to a cession of monies due or to become due under

this agreement as security in favour of a financial institution, unless such financial

institution submitted to the IDT a Valid Tax Clearance Certificate, is registered as

a credit provider in terms of the National Credit Act and as a vendor in the IDT's

Vendor Management System.

5 **INTERIM PAYMENT** 

5.1 The **Employer** shall, in accordance with clause 8.2.3 of the treasury regulation of March 2005, pay to the **Contractor** the amount certified in an interim **payment** certificate within thirty (30) calendar days of the date of submission of the payment certificate".

5.2 Default interest, where applicable, shall only be effective after the 30 calendar days of the date of receipt of the interim **payment certificate from the Principal Agent.** 

5.3 The Employer shall be entitled to apply a set-off against a legitimate and liquid claim against the Contractor from which a valid invoice has been received.

#### 6 TAX COMPLIANCE MEAUSRES

6.1 The Contractor hereby grant confirmation that SARS may, on on-going basis during the contract term, disclose the Contractor's tax compliance status to the employer.

6.2 Should the Contractor appoint a sub-contractor to execute a portion of a work in excess of the threshold (currently 25%) prescribed by the National Treasury, the Contractor must ensure that a sub-contractor is tax complaint and remains tax compliant for the full duration of the contract. The contractor shall obtain a written consent from its sub-contractors confirming that SARS may on on-going basis during the contract term, disclose the sub-contractor's tax compliance status to the employer.

6.3 The Contractor shall submit a valid tax clearance certificate within 10 working days from the date of expiry of the tax clearance certificate. The Employer reserve the right to demand a valid Tax Clearance Certificate prior to making any payment to the Contractor, should it become aware that the tax clearance corticated has expired.

6.4 Unless the Employer receive a written confirmation that the Contractor has challenged its tax compliance status with SARS, the Employer shall not process

- any payment to the Contractor, if 30 days has lapsed since the written notice by the Employer and the Contractor has failed to remedy its tax compliance status.
- 6.5 Employer's non-payment of the Contractor's invoice in accordance with clause 6.4 above shall not absolve the contractor from performing its obligation in terms of the contract.
- 6.6 Unless the Employer receives a written confirmation that the Contractor or sub-Contractor has challenged its tax compliance status with SARS, the Employer shall be entitled to cancel the contract with the Contractor or instruct the Contractor to cancel its contract with the Sub-Contractor.
- 6.7 Where a Contractor is a JV, each party to a JV must be tax complaint and remains tax compliant for the full duration of the contract, failing which, the Employer shall invoke paragraph 6.4 or 6.6 above.

#### 7. APPROVAL OF VARIATION ORDERS

- 7.1 Upon receipt of the Variation Order (VO), the Principal Agent must professionally consider the merits of the Variation Order and make a recommendation to the Employer.
- 7.2 The Principal Agent shall not have the power to approve any deviation or variation which has financial implications on the Employer without the necessary written approval of the Employer, except under emergency circumstances wherein failure to undertake the work may result in loss of life.
- 7.3 The Employer must communicate the approval of a Variation Order in writing to the Principal Agent and the Principal Agent shall, upon receipt of confirmation of the approval of the VO, issue the necessary Contract Instruction to the contractor to undertake the works.
- 7.4 The Contractor shall not commence with any Variation Order Works without the written approval of the Variation Order from the Employer, except under circumstances mentioned in paragraph **7.2** above.

7.5 Should the Contractor undertakes the Variation Order Works without the necessary written approval of the Variation Order from the Employer, the Contractor shall be entirely liable for any financial and any related implications and hereby indemnify and hold harmless the Employer from and against any and all claims, actions, damages, liabilities, injuries, costs, fees, expenses, or losses, including and without limitation, reasonable attorney's fees and costs of investigation and litigation, whatsoever which may be incurred by, or for which liability may be asserted against, the Employer arising out of the Contractor's performance or non-performance of unauthorized works, but only to the extent caused by the negligent acts, errors or omissions of the Contractor.

7.6 The Contractor shall not accept any instructions from any party, including beneficiary Department, other than the Principal Agent.

#### 8. **JOINT VENTURE AGREEMENT**

8.1 Should the Joint Venture Agreement be dissolved or any of the JV partner pull out the JV Agreement for any reasons whatsoever, the Employer hereby reserve its right to terminate the contract with immediate effect.

8.2 Should the Employer decide not to terminate the contract upon the dissolution of the JV Agreement and the replacement JV partner does not meet the BBBEE threshold stipulated in the BID document, the IDT shall be entitled to cancel the contract with immediate effect.

8.3 Should the BBBEE status of the Joint Venture be changed to a lower rate than the Bidding rate, based on legislation applicable at the closing date of the

8.4 BID, the IDT shall be entitled to cancel the contract.

#### 9. BREACH

- 9.1 In the event that the contractor: -
  - 9.1.1 commits an act of insolvency; or
  - 9.1.2 is placed under a provisional or final winding-up or judicial management order; or
  - 9.1.3 is placed under or applied for business rescue; or
  - 9.1.4 makes an assignment of more than 25% of either its right and/or its obligation for the benefit of the third arty without the written consent of the employer; or
  - 9.1.5 the Contractor is registered or fails to renew his registration with the CIDB or changes directorship during the course of the project, resulting in the contravention of BBBEE statutory requirement; or
  - 9.1.6 fails to satisfy or take steps to have set aside any judgment taken against it within 14 (Fourteen) business days after such judgment has come to its notice,

then	the	other	Employer	will	be	entitled	to	terminate	the	Agreement	or
writte	en no	otice.									

Signed at	on this the	dav of	202
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#### **AS WITNESSES:**

1	
	For and on behalf of the <b>Employer:</b> (), in his/her
	capacity as the
2.	
	For and on behalf of the <b>Employer:</b>
	(),in his/her capacity as the
Signed at on this the	day of <b>202</b>
AS WITNESSES:	
3.	
f	
4.	
	For and on behalf of the <b>Contractor</b> :
	n his/her capacity as
	who hereby confirm that he/she is
	duly authorized.

Item No		Quantity	Rate	Amount R
	SECTION NO. 1			
	BILL NO. 1			
	<u>PRELIMINARIES</u>			
	CONDITIONS OF CONTRACT AND PRELIMINARIES			
	<u>Disclaimer</u>			
	While the ASAQS aims to ensure that its publications represent best practice, the ASAQS does not accept or assume any liability or responsibility for any events or consequences which derive from the use of the Preliminaries Model Bill. Such Model Bill is not exhaustive and is therefore only intended to provide general guidance to those who wish to make use of it. This publication is provided "as is" without warranty of any kind, either expressed or implied including but without limitation to warranties of merchantability, fitness for a particular purpose and non-infringement			
	BUILDING AGREEMENT AND PRELIMINARIES			
	The <b>JBCC</b> Principal Building Agreement (Edition 6.2 - May 2018) prepared by the Joint Building Contracts Committee shall be the applicable building agreement, amended as hereinafter described			
	The <b>JBCC</b> Principal Building Agreement <b>contract data</b> form an integral part of this <b>agreement</b>			
	The <b>JBCC</b> General Preliminaries (May 2018) published by the Joint Building Contracts Committee for use with the <b>JBCC</b> Principal Building Agreement (Edition 6.2 - May 2018) shall be deemed to be incorporated in these <b>bills of quantities</b> , amended as hereinafter described			
	Carried to collection		R	
	Bill No. 1 PRELIMINARIES BID NO.: DOE14NWER015A			

The <b>contractor</b> is deemed to have referred to the abovementioned documents for the full intent and meaning of each clause		
The clauses in the abovementioned documents are hereinafter referred to by clause number and heading only		
Where any item is not relevant to this <b>agreement</b> such item is marked N/A signifying "not applicable"		
Where standard clauses or alternatives are not entirely applicable to this <b>agreement</b> such amendments, modifications, corrections or supplements as will apply are given under each relevant clause heading and such amendments, modifications, corrections or supplements shall take precedence notwithstanding anything to the contrary contained in the abovementioned documents		
PREAMBLES FOR TRADES		
The General Preambles for Trades 2017 published by the Association of South African Quantity Surveyors is designed to support and extend the abbreviated descriptions utilised in these bills of quantities by inter alia referring to SANS construction standards. Where such preambles are not applicable (eg where BS or Euro construction standards are applicable or the design consultants provide other preambles/specifications for insertion), users are to ensure that the abbreviated descriptions when read in conjunction with the Standard System of Measuring Building Work (seventh edition) for works within South Africa or the Standard Method of Measuring Building Work for Africa 2015 (Seventh edition) for works elsewhere in Africa, represent the full description by extending the abbreviated bills of quantities descriptions and/or by inserting appropriate preambles or specifications		
Carried to collection	R	
Bill No. 1 PRELIMINARIES BID NO.: DOE14NWER015A		

Note that the text of the Standard System of Measuring Building Work (seventh edition) and that of the Standard Method of Measuring Building Work for Africa 2015 (first edition) is the same		
The latest version of the General Preambles for Trades should be referred to should the General Preambles for Trades 2017 be revised in future		
The General Preambles for Trades 2017 published by the Association of South African Quantity Surveyors shall be deemed to be incorporated in these <b>bills of quantities</b> and no claims arising from brevity of description of items fully described in the said General Preambles will be entertained		
Supplementary preambles and/or specifications are incorporated in these <b>bills of quantities</b> to satisfy the requirements of this project. Such supplementary preambles and/or specifications shall take precedence over the provisions of the General Preambles		
The <b>contractor's</b> prices for all items throughout these <b>bills of quantities</b> shall take account of and include where applicable for all of the obligations, requirements and specifications given in the General Preambles and in any supplementary preambles and/or specifications		
STRUCTURE OF THIS PRELIMINARIES BILL		
Section A: A recital of the headings of the individual clauses in the aforementioned <b>JBCC</b> Principal Building Agreement		
Section B : A recital of the headings of the individual clauses in the aforementioned <b>JBCC</b> General Preliminaries		
Section C: Any special clauses to meet the particular circumstances of the project		
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Carried to collection	R	_
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	PRICING OF PRELIMINARIES		
	Should the <b>contractor</b> select Option A in the <b>contract data</b> for the adjustment of <b>preliminaries</b> , the amounts entered against the relevant items in these <b>preliminaries</b> are to be divided into one or more of the three categories provided namely fixed (F), value related (V) and time related (T)		
	SECTION A: PRINCIPAL BUILDING AGREEMENT		
	Interpretation (A1-A7)		
1	Clause 1.0 - Definitions and interpretation		
	Pricing of bills of quantities		
	The <b>contractor</b> is to allow opposite each item for all costs in connection therewith. All prices to include, unless otherwise stated, for all materials, fabrication, conveyance and delivery, unloading, storing, unpacking, hoisting, labour, setting, fitting and fixing in position, cutting and waste (except where to be measured in accordance with the standard system of measurement), patterns, models and templates, plant, temporary works, returning of packaging, duties, taxes (other than Value Added Tax), imposts, establishment charges, overheads, profit and all other obligations arising out of this <b>agreement</b> . Value Added Tax (VAT) is to be separately stated on the summary page of these <b>bills of quantities</b> Items left unpriced will be deemed to be covered in prices against other items throughout these <b>bills of quantities</b> and no claim for any extras arising out of the <b>contractor's</b> omission to price any item will be entertained		
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	Prices for all <b>construction equipment</b> , temporary works, services and other items shall include for the supply, maintenance, operating cost and subsequent removal and making good as necessary			
	Abbreviated descriptions			
	The items in these <b>bills of quantities</b> utilise abbreviated descriptions. It is the intention that the abbreviated descriptions be fully described when read with the applicable measuring system and the relevant preambles and/or specifications. However, should the full intent and meaning of any description not be clear, the <b>contractor</b> shall, before submission of his tender, call for a written directive from the <b>principal agent</b> , failing which it shall be assumed that the <b>contractor</b> has allowed in his pricing for materials and workmanship in terms of international best practice			
	Legal status of contractor			
	If the <b>contractor</b> constitutes a joint venture, consortium or other unincorporated grouping of two or more persons then:			
	<ol> <li>These persons are deemed to be jointly and severally liable to the employer for the performance of this agreement</li> </ol>			
	2. These persons shall notify the <b>employer</b> of their leader who has assigned authority to bind the <b>contractor</b> and each of these persons			
	3. The <b>contractor</b> shall not alter its composition or legal status without the prior written consent of the <b>employer</b>			
	F: V:	Item		
2	Clause 2.0 - Law, regulations and notices			
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3	Clause 3.0 - Offer and acceptance				
	F: V:				
	T:	Item			
4	Clause 4.0 - Cession and assignment				
_					
	F: T:	Item			
5	Clause 5.0 - Documents				
	Value Added Tax				
	Provision is made in the summary page of these <b>bills of quantities</b> for the inclusion of Value Added Tax (VAT)				
	Priced document as specification				
	Clause 5.4 is deemed to be deleted				
	The <b>principal agent</b> shall decide which portion of the <b>priced document</b> may be used as a specification of <b>materials and goods</b> or methods, if any				
	Electronic issue of drawings				
	All drawings for this project will be issued electronically and the <b>contractor</b> shall be deemed to have received such drawings on the date that such drawings have been dispatched electronically [5.6]				
	F: V:	Item			
		ltein			
6	Clause 6.0 - <b>Employer's agents</b>				
	Delegated authority				
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The authority of the <b>princ contract instructions</b> [17.1] for specific aspects of the <b>w agents</b> as follows [6.2]. This of <b>principal agent</b> from issuinstructions:	and perform duties  orks is delegated to does not preclude the		
1. Architect			
1.1 Duties [6.2]:			
The architect is responsible design, functional design and the <b>works</b>			
1.2 Contract instructions [6.	2; 17.1]:		
1.2.1 Rectification of dis description or quantity in the <b>agreement</b> oth Principal Building Agreement	er than in the <b>JBCC</b>		
1.2.2 Alteration to design, so of the <b>works</b> provided <b>instructions</b> shall not the scope of the <b>works</b>	I that such <b>contract</b> substantially change		
1.2.3 The <b>site</b> [13.0]			
1.2.4 Compliance with the bylaws [2.1]	law, regulations and		
1.2.5 Provision and to materials and goods and assemblies of elem			
1.2.6 Opening up of removal or re-execution	work for inspection, n [23.2.4; 26.4.2]		
1.2.7 Removal or re-executi	ion of work		
1.2.8 Removal or substitue and goods	tion of any <b>materials</b>		
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1.2.9 Protection of the <b>works</b>		
1.2.10 Making good physical loss and repairing damage to the <b>works</b> [23.2.2]		
1.2.11 Rectification of <b>defects</b> [21.2]		
1.2.12 A <b>list for practical completion</b> specifying outstanding or defective work to be rectified to achieve <b>practical completion</b> , a <b>list for completion</b> and a <b>list for final completion</b> specifying outstanding or defective work to be rectified to achieve <b>final completion</b>		
1.2.13 Expenditure of budgetary allowances, prime cost amounts and provisional sums		
1.2.14 Appointment of a <b>subcontractor</b> [14.0; 15.0]		
1.2.15 Work by <b>direct contractors</b> [16.0]		
1.2.16 On suspension or termination, protection of the works, removal of construction equipment and surplus materials and goods [29.0]		
2. Quantity surveyor		
2.1 Duties [6.2] :		
The quantity surveyor is responsible for all measurements, valuations, financial assessments and all other quantity surveying and cost control functions of the <b>works</b>		
2.2 Contract instructions [6.2; 17.1]:		
2.2.1 No <b>contract instructions</b> delegated to the quantity surveyor		
3. <u>Civil and structural engineer</u>		
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3.1 Dı	aties [6.2]:		
all as	vil and structural engineer is responsible for spects of civil and structural engineering and quality inspection of the <b>works</b>		
3.2 <b>C</b> c	ontract instructions [6.2; 17.1] :		
3.2.1	Rectification of discrepancies, errors in description or quantity or omission of items in the <b>agreement</b> other than in the <b>JBCC</b> Principal Building Agreement		
3.2.2	Alteration to design, standards or quantity of the <b>works</b> provided that such <b>contract instructions</b> shall not substantially change the scope of the <b>works</b>		
3.2.3	The <b>site</b> [13.0]		
3.2.4 bylaws	Compliance with the <b>law</b> , regulations and s [2.1]		
3.2.5	Provision and testing of samples of <b>materials and goods</b> and/or of finishes and assemblies of elements of the <b>works</b>		
3.2.6	Opening up of work for inspection, removal or re-execution [23.2.4; 26.4.2]		
3.2.7	Removal or re-execution of work		
3.2.8 and go	Removal or substitution of any <b>materials</b>		
3.2.9	Protection of the <b>works</b>		
	Making good physical loss and repairing ge to the <b>works</b> [23.2.2]		
3.2.11	Rectification of <b>defects</b> [21.2]		
	Carried to collection	R	
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.2.12 A list for practical completion specifying outstanding or defective work to be rectified to achieve practical completion, a list for completion and a list for final completion specifying outstanding or defective work to be rectified to achieve final completion		
3.2.13 Expenditure of <b>budgetary allowances</b> , <b>prime cost amounts</b> and <b>provisional</b> sums		
. <u>Mechanical engineer</u>		
1 Duties [6.2] :		
The mechanical engineer is responsible for all aspects of mechanical engineering design and quality inspection of the <b>works</b> and, where appointed by the <b>employer</b> for quantity surveying services in respect of the mechanical installations, for all measurements, valuations, financial assessments and all other quantity surveying and cost control functions		
Contract instructions [6.2; 17.1]:		
.2.1 Rectification of discrepancies, errors in description or quantity or omission of items in the <b>agreement</b> other than in the <b>JBCC</b> Principal Building Agreement		
2.2 Alteration to design, standards or quantity of the <b>works</b> provided that such <b>contract instructions</b> shall not substantially change the scope of the <b>works</b>		
2.3 Compliance with the <b>law</b> , regulations and rlaws [2.1]		
.2.4 Provision and testing of samples of <b>materials and goods</b> and/or of finishes and assemblies of elements of the <b>works</b>		
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4.2.5 Opening up of work for inspection, removal or re-execution [23.2.4; 26.4.2]		
4.2.6 Removal or re-execution of work		
4.2.7 Removal or substitution of any <b>materials</b> and goods		
4.2.8 Protection of the <b>works</b>		
4.2.9 Making good physical loss and repairing damage to the <b>works</b> [23.2.2]		
4.2.10 Rectification of <b>defects</b> [21.2]		
4.2.11 A list for practical completion specifying outstanding or defective work to be rectified to achieve practical completion, a list for completion and a list for final completion specifying outstanding or defective work to be rectified to achieve final completion		
4.2.12 Expenditure of budgetary allowances, prime cost amounts and provisional sums		
5. <u>Electrical engineer</u>		
5.1 Duties [6.2]:		
The electrical engineer is responsible for all aspects of electrical engineering design and quality inspection of the <b>works</b> and, where appointed by the <b>employer</b> for quantity surveying services in respect of the electrical installations, for all measurements, valuations, financial assessments and all other quantity surveying and cost control functions		
5.2 <b>Contract instructions</b> [6.2; 17.1] :		
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5.2.1	Rectification of discrepancies, errors in description or quantity or omission of items in the <b>agreement</b> other than in the <b>JBCC</b> Principal Building Agreement		
5.2.2	Alteration to design, standards or quantity of the <b>works</b> provided that such <b>contract instructions</b> shall not substantially change the scope of the <b>works</b>		
5.2.3 bylaws	Compliance with the <b>law</b> , regulations and [2.1]		
5.2.4	Provision and testing of samples of <b>materials and goods</b> and/or of finishes and assemblies of elements of the <b>works</b>		
5.2.5	Opening up of work for inspection, removal or re-execution [23.2.4; 26.4.2]		
5.2.6	Removal or re-execution of work		
5.2.7 and go	Removal or substitution of any <b>materials</b>		
5.2.8	Protection of the <b>works</b>		
5.2.9	Making good physical loss and repairing damage to the <b>works</b> [23.2.2]		
5.2.10	Rectification of <b>defects</b> [21.2]		
5.2.11	A list for practical completion specifying outstanding or defective work to be rectified to achieve practical completion, a list for completion and a list for final completion specifying outstanding or defective work to be rectified to achieve final completion		
5.2.12	Expenditure of budgetary allowances, prime cost amounts and provisional sums		
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6. <u>Wet</u>	services engineer		
	hat the contract instructions hereinafter are d from those listed in clause 17.1 of the JBCC		
6.1 Du	ties [6.2]:		
aspects	et services engineer is responsible for all s of wet services engineering design and rinspection of the <b>works</b>		
6.2 <b>Co</b>	ntract instructions [6.2; 17.1]:		
6.2.1	Rectification of discrepancies, errors in description or quantity or omission of items in the <b>agreement</b> other than in the <b>JBCC</b> Principal Building Agreement		
6.2.2	Alteration to design, standards or quantity of the <b>works</b> provided that such <b>contract instructions</b> shall not substantially change the scope of the <b>works</b>		
6.2.3 bylaws	Compliance with the $\mathbf{law}$ , regulations and $[2.1]$		
6.2.4	Provision and testing of samples of <b>materials and goods</b> and/or of finishes and assemblies of elements of the <b>works</b>		
6.2.5	Opening up of work for inspection, removal or re-execution [23.2.4; 26.4.2]		
6.2.6	Removal or re-execution of work		
6.2.7 <b>and go</b>	Removal or substitution of any <b>materials</b>		
6.2.8	Protection of the <b>works</b>		
6.2.9	Making good physical loss and repairing damage to the <b>works</b> [23.2.2]		
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6.2.10 Rectification of <b>defects</b> [21.2]		
6.2.11 A list for practical completion specifying outstanding or defective work to be rectified to achieve practical completion, a list for completion and a list for final completion specifying outstanding or defective work to be rectified to achieve final completion		
6.2.12 Expenditure of budgetary allowances, prime cost amounts and provisional sums		
7. <u>Fire consultant</u>		
7.1 Duties [6.2] :		
The fire consultant is responsible for all aspects of rational fire design and quality inspection of the works		
7.2 <b>Contract instructions</b> [6.2; 17.1] :		
7.2.1 Rectification of discrepancies, errors in description or quantity or omission of items in the <b>agreement</b> other than in the <b>JBCC</b> Principal Building Agreement		
7.2.2 Alteration to design, standards or quantity of the <b>works</b> provided that such <b>contract instructions</b> shall not substantially change the scope of the <b>works</b>		
7.2.3 Compliance with the <b>law</b> , regulations and bylaws [2.1]		
7.2.4 Provision and testing of samples of <b>materials and goods</b> and/or of finishes and assemblies of elements of the <b>works</b>		
7.2.5 Opening up of work for inspection, removal or re-execution [23.2.4; 26.4.2]		
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7.2.6 Removal or re-execution of work	
7.2.7 Removal or substitution of any <b>materials</b> and goods	
7.2.8 Protection of the <b>works</b>	
7.2.9 Making good physical loss and repairing damage to the <b>works</b> [23.2.2]	
7.2.10 Rectification of <b>defects</b> [21.2]	
7.2.11 A list for practical completion specifying outstanding or defective work to be rectified to achieve practical completion, a list for completion and a list for final completion specifying outstanding or defective work to be rectified to achieve final completion	
7.2.12 Expenditure of budgetary allowances, prime cost amounts and provisional sums	
8. <u>Health and safety consultant</u>	
8.1 Duties [6.2]:	
The health and safety consultant is responsible for all aspects of health and safety of the <b>works</b> . Without derogating from the generality thereof, the health and safety consultant will perform the following specific functions and duties in respect of the health and safety aspects of the <b>works</b> . He shall:	
8.1.1 Act as the <b>employer's agent</b> in terms of the Construction Regulations issued in terms of the Occupational Health and Safety Act,1993 as amended	
8.1.2 Prepare and update the health and safety specification for the <b>works</b>	
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	8.1.3 Agree with the <b>contr</b> safety plan for the <b>works</b>	ractor the health and			
	8.1.4 Carry out regular adherence to the compliance with the a				
		the <b>works</b> where the or plan is not adhered			
	F: T:	V:	Item		
7	Clause 7.0 - Design responsib	bility			
	F: T:	V:	Item		
	Insurances and securities (A	A8-A11)			
8	Clause 8.0 - Works risk				
	F: T:	V:	Item		
9	Clause 9.0 - Indemnities				
	F: T:	V:	Item		
10	Clause 10.0 - Insurances				İ
	F: T:	V:	Item		
11	Clause 11.0 - <b>Securities</b>				
	Guarantee for payment				
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		Carried to collection		R	
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	The <b>employer</b> shall provide to the <b>contractor</b> a <b>guarantee for payment</b> in the amount of contract sum [11.5.1]. The <b>contractor</b> shall consequently waive his lien or right of continuing possession of the <b>works</b> [11.10]			
	Extension of waiver of lien			
	The <b>contractor</b> shall ensure that a waiver of lien is included in all subcontracts and that the <b>works</b> executed on the <b>site</b> are kept free of all liens and other encumbrances at all times [11.10]			
	F: V: T:	Item		
	Execution (A12 - A17)			
12	Clause 12.0 - Obligations of the <b>parties</b>			
	Office accommodation			
	The contractor shall provide, maintain and remove on completion of the works an office for the exclusive use of the principal agent, minimum size 9180 x 3680 x 3000mm high internally, suitably insulated and ventilated, provided with electric lighting and fitted with boarded floor, desk, chair, drawing stool, drawing board and lock-up drawers for drawings. The office shall be kept clean and fit for use at all times  [As per Drawing: MCSPH2-SO-101]			
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	Notice board			
	The contractor shall provide, erect where directed, maintain and remove on completion of the works a notice board size 3000 x 3350mm, constructed of suitable boarding with flat smooth surface and with edging bead 19mm thick round outer edges and projecting 12mm from face of boarding and rounded on front edge. The board shall be securely fixed to hoarding, where hoarding is provided, or fixed to and including a suitable supporting structure of timber or tubular posts and braces. The board is to be painted ivory white and the bead and 12mm wide dividing lines dark green. All wording shall be inscribed in dark green as per the coat of arms for SA. All wording shall be inscribed in dark green painted sans serif lettering [As per Drawing: MCS-PH2-SB-101]			
	Statutory and other notices			
	The <b>contractor</b> shall submit and/or comply with all statutory and other notices that may be required by any local or other authority in order not to cause any delay to the commencement of the <b>works</b> by the <b>contractor</b> . The <b>contractor</b> shall pay all deposits or fees in this regard			
	It is, however, specifically recorded that the <b>employer</b> shall be responsible for the timeous approval of building plans by any local or other authorities and the payment of any fees or charges related thereto			
	F: V:	Item		
13	Clause 13.0 - Setting out			
	F: V:	Item		
14	Clause 14.0 - Nominated <b>subcontractors</b>			
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	F: V:	Item		
15	Clause 15.0 - Selected <b>subcontractors</b>			
	F: V:	Item		
16	Clause 16.0 - Direct contractors			
	Attendance on direct contractors			
	In respect of <b>direct contractors</b> the <b>contractor</b> shall:			
	<ol> <li>Designate an area for the <b>direct contractor</b> to establish a temporary office and workshop and storage of equipment and materials</li> </ol>			
	2. Allow the use of personnel welfare facilities, where provided			
	3. Provide water, lighting and single phase electric power to a position within 50m of the place where the direct contract work is to be carried out, other than fuel or power for commissioning of any installation			
	4. Permit the <b>direct contractor</b> to use erected scaffolding, hoisting facilities, etc provided by the <b>contractor</b> , in common with others having the like right, while it remains erected on the <b>site</b> [16.1]			
	F: V:	Item		
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17	Clause 17.0 - Contract instru	uctions			
	Site instructions				
	Instructions issued on <b>site</b> as site instruction book which i maintained on <b>site</b> by the <b>cor</b>	s to be supplied and			
	F: T:	V:	Item		
	Completion (A18 - A24)				
18	Clause 18.0 - Interim complet	ion	N/A		
19	Clause 19.0 - Practical comp	letion			
	F: T:	V:	Item		
20	Clause 20.0 - Completion in s	ections			
	F: T:	V:	Item		
21	Clause 21.0 - <b>Defects</b> liabi completion	lity period and <b>final</b>			
	F: T:	V:	Item		
22	Clause 22.0 - Latent defects	liability period			
	F: T:	V:	Item		
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23	Clause 23.0 - Revision of the date for <b>practical</b> completion			
	Substitution of materials and goods			
	The removal or substitution of any <b>materials and goods</b> which do not conform to the specification or the <b>contract drawings</b> shall not constitute grounds for the extension of the <b>construction period</b> nor for the adjustment of the <b>contract value</b> [17.1.8; 23.1 & 2]			
	F: V: T:	Item		
	1	Item		
24	Clause 24.0 - <b>Penalty</b> for late or non-completion			
	F: V:	Itaria		
	T:	Item		
	Payment (A25 - A27)			
25	Clause 25.0 - Payment			
	Prices submitted			
	Where prices are submitted by the <b>contractor</b> or <b>subcontractor</b> during the progress of the <b>works</b> in respect of <b>contract instructions</b> or in regard to a claim under the terms of this <b>agreement</b> and notwithstanding the fact that such prices may be used in an interim <b>payment certificate</b> , there is to be no presumption of acceptance. Should the <b>principal agent</b> wish to accept any such prices prior to the issue of the <b>certificate of final completion</b> , it shall be in writing			
	F: V:	Item		
26	Clause 26.0 - Adjustment of the <b>contract value</b> and <b>final account</b>			
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	Fluctuations in costs			
	All fluctuations in costs, with the exception of fluctuations in the rate of Value Added Tax, shall be for the account of the <b>contractor</b> [26.9.5]			
	Should the <b>contractor</b> be instructed to do so he shall execute this work under the conditions pertaining to this <b>agreement</b> on the basis that a separate amount for <b>preliminaries</b> appurtenant to this work (if applicable) is agreed to between the <b>contractor</b> and the <b>principal agent</b> and on condition that instruction to proceed with such work is given to him within a period of three (3) calendar months after the date of <b>practical completion</b> of the <b>works</b>			
	The <b>employer</b> reserves the right to omit such work without compensation to the <b>contractor</b> for loss of profit or any other loss which the <b>contractor</b> may suffer as a result of such omission			
	Cost of claims			
	All costs incurred by the <b>contractor</b> in the preparation of claims shall be borne by the <b>contractor</b> . This provision shall not preclude an adjudicator or an arbitrator appointed in terms of this <b>agreement</b> [30.6 & 7] from making a determination on costs			
	Claims from subcontractors			
	The <b>contractor</b> shall review, assess and adjudicate any claims received by him from any <b>subcontractor</b> and thereafter submit same to the <b>principal agent</b> with a recommendation in order to assist the <b>principal agent</b> in adjudicating the claim [26.6]			
	F: V:	Item		
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27	Clause 27.0 - Recovery of expense and/or	loss		
	F: V:	Item	ı	
	Suspension and termination (A28 - A29	1		
28	Clause 28.0 - Suspension by the <b>contract</b>	cor		
	F: V:	Item	ı	
29	Clause 29.0 - Termination			
	F: V:	Item	ı	
	Dispute resolution (A30)			
30	Clause 30.0 - Dispute resolution			
	F: V:	Item	L	
31	Agreement			
	The required information of the <b>parties</b> amount of the <b>contract sum</b> shall be in the <b>agreement</b> for signature of the <b>agree</b> the <b>parties</b>	nserted in		
	F: V:	Item	ı	
32	Contract data			
	Tenderer's selections			
	Before submission of his tender the <b>cont</b> to complete the tenderer's selections <b>contract data</b>			
	F: V:	Item	L	
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	SECTION B: GENERAL PI	RELIMINARIES			
	Definitions and interpretati	on (B1)			
33	Clause 1.1 - Definitions				
	F: T:	V:	Item		
34	Clause 1.2 - Interpretation				
	F: T:	V:	Item		
	Documents (B2)				
35	Clause 2.1 - Checking of docu	aments			
	F: T:	V:	Item		
36	Clause 2.2 - Provisional <b>bills</b>	of quantities			
37	Clause 2.3 - Availability information	y of <b>construction</b>			
	F: T:	V:	Item		
38	Clause 2.4 - Ordering of mate	erials and goods			
	F: T:	V:	Item		
	Previous work and adjoining	g properties (B3)			
39	Clause 3.1 - Previous work - o	limensional accuracy			
	F: T:	V:	Item		
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40	Clause 3.2 - Previous work - d	lefects			
	F: T:	V:	Item		
41	Clause 3.3 - Inspection of adjo	oining properties			
	F: T:	V:	Item		
	The site (B4)				
42	Clause 4.1 - Handover of <b>site</b>	in stages			
	F: T:	V:	Item		
43	Clause 4.2 - Enclosure of the	works	Item		
	F: T:	V:			
44	Clause 4.3 - Geotechnical and	other investigations			
	F: T:	V:	Item		
45	Clause 4.4 - Encroachments				
	F: T:	V:	Item		
46	Clause 4.5 - Existing premises	s occupied			
	F: T:	V:	Item		
47	Clause 4.6 - Services - known				
	F: T:	V:	Item		
		Carried to collection		R	
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	Management of contract (B5	5)			
48	Clause 5.1 - Management of the	he <b>works</b>			
	F: T:	V:	Item		
49	Clause 5.2 - Progress meeting	s			
	F: T:	V:	Item		
50	Clause 5.3 - Technical meetin	gs			
	F: T:	V:	Item		
	Samples, shop drawings instructions (B6)	and manufacturer's			
51	Clause 6.1 - Samples of mater	rials			
	F: T:	V:	Item		
52	Clause 6.2 - Workmanship sa	mples			
	F: T:	V:	Item		
53	Clause 6.3 - Shop drawings				
	F: T:	V:	Item		
54	Clause 6.4 - Compliance instructions	with manufacturer's			
	F:	V:	Itama		
	T:		Item		
		Carried to collection		R	
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	Deposits and fees (B7)			
55	Clause 7.1 - Deposits and fees			
	F: V:	Item		
	Temporary services (B8)			
56	Clause 8.1 - Water			
	F: V:	Item		
57	Clause 8.2 - Electricity			
	F: V:	Item		
58	Clause 8.3 - Ablution and welfare facilities			
	F: V:	Item		
59	Clause 8.4 - Communication facilities			
	F: V:	Item		
	Prime cost amounts (B9)			
60	Clause 9.1 - Responsibility for <b>prime cost</b> amounts			
	F: T:	Item		
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	Attendance on subcontracto	ors (B10)			
61	Clause 10.1 - General attenda	ance			
	General attendance is defined the contractor in terms of cla n/s subcontract agreement				
	F: T:	V:	Item		
62	Clause 10.2 - Special attenda	nce			
	General (B11)				
63	Clause 11.1 - Protection of th	e <b>works</b>			
	F: T:	V:	Item		
64	Clause 11.2 - Protection/works and works occupied in				
	F: T:	V:	Item		
65	Clause 11.3 - Security of the	works			
	F: T:	V:	Item		
66	Clause 11.4 - Notice before co	vering work			
	F: T:	V:	Item		
67	Clause 11.5 - Disturbance				
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	Disturbance			
	All work is to be carried out in such a manner as to cause no unacceptable or unreasonable dust, noise, vibrations, nuisance, inconvenience, annoyance and the like to the public, others, other properties and traffic in so far as they exceed the permissible limitations set by government legislation or by the local authority. Any delays, stoppages and the like arising from or in order to comply with the above will not constitute grounds for an adjustment to the <b>construction period</b> or <b>contract value</b> whatsoever			
	F: V:T:	Item		
68	Clause 11.6 - Environmental disturbance			
	Controlling all forms of pollution			
	The <b>contractor</b> shall be responsible for and take all precautions in controlling by whatever means necessary all forms of pollution emanating from the <b>site</b> during the <b>construction period</b> due inter alia to noise, artificial light, wind-blown sand, dust, deposits of mud, etc.			
	The <b>contractor</b> is to ensure that all roads which border the <b>site</b> and are used by the <b>contractor</b> during the execution of the <b>works</b> are kept clean and free of any dirt or debris caused by the execution of the <b>works</b>			
	Environmental management plan			
	The <b>employer</b> has prepared an environmental management plan (EMP) (refer to Annexures for a copy of the relevant plan). The <b>contractor</b> shall price opposite this item for compliance with all the requirements of such EMP			
	F: V:T:	Item		
	Commical to collection		R	
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69	Clause 11.7 - Works cleaning	and clearing			
	F: T:	V:	Item		
70	Clause 11.8 - Vermin				
	F: T:	V:	Item		
71	Clause 11.9 - Overhand work				
	F: T:	V:	Item		
72	Clause 11.10 - Tenant installa	ations			
	F: T:	V:	Item		
73	Clause 11.11 - Advertising				
	F: T:	V:	Item		
	SECTION C: SPECIFIC PR	RELIMINARIES			
74	Warranties for materials and v	workmanship			
	Where warranties for workmanship are called for, obtain a written warranty, employer, from the entity su and/or executing the work at to the principal agent on fin contract	, addressed to the pplying the materials nd shall deliver same			
	The warranty shall state materials and installation a specific period from the <b>completion</b> and that any <b>de</b> during the specified period state expense of the entity sugand/or doing the work, upon so	date of <b>practical</b> fects that may arise hall be made good at pplying the materials			
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	The warranty will not be enforced if the work is damaged by <b>defects</b> in the execution of the <b>works</b> , in which case the responsibility for replacement shall rest entirely with the <b>contractor</b>			
	F: V:	Item		
75	Overtime			
	Should overtime be required to be worked for any reason whatsoever, the cost of such overtime is to be borne by the <b>contractor</b> unless the <b>principal agent</b> has specifically authorised, prior to execution thereof, that costs for such overtime are to be borne by the <b>employer</b>			
	F: V:T:	Item		
76	Cooperation of the <b>contractor</b> for cost management			
	It is specifically agreed that the <b>contractor</b> accepts the obligation of assisting the <b>principal agent</b> in implementing proper cost management. The <b>contractor</b> will be advised by the <b>principal agent</b> of all cost management procedures which will be implemented to ensure that the <b>contract value</b> does not exceed the budget			
	F: V:T:	Item		
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77	Overloading			
	The <b>contractor</b> shall take all necessary steps to ensure that no damage occurs due to overloading of any portion of the <b>works</b> or temporary works e.g. scaffolding, etc. The <b>contractor</b> shall submit details of his proposed loading, storage, plant erection, etc to the <b>principal agent</b> for approval prior to proceeding with such loading, storing or erecting and shall comply with and pay for the <b>principal agent's</b> requirements in connection with the provision of temporary support work, etc. Any damage caused to the <b>works</b> by overloading shall be made good by the <b>contractor</b> at his sole expense			
	F: V:T:	Item		
78	Propping of floors below			
	The <b>contractor</b> is advised that propping of floors below may be required if he wishes to use any areas of completed suspended reinforced concrete slabs for vehicle access, storage of <b>materials and goods</b> and location of plant, scaffolding, etc. The location of these areas and any necessary propping shall be approved by the <b>principal agent</b> and the cost thereof shall be borne by the <b>contractor</b>			
	F: V:T:	Item		
79	Testing of flat roof waterproofing for watertightness			
	Flat roof waterproof areas shall be flooded and kept "ponded" for at least forty eight (48) hours as a test to ensure the watertightness of the waterproofing and before any further construction work is carried out above the waterproofing			
	F: V:T:	Item		
80	Health and safety			
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Without limiting the generality of the provisions of clause 2.0, the <b>contractor's</b> attention is drawn to the provisions of the Construction Regulations issued in terms of the Occupational Health and Safety Act, 1993 as amended. It is specifically stated that the <b>employer</b> shall prepare a documented health and safety specification for the <b>works</b> and that the <b>employer</b> shall ensure that the <b>contractor</b> has made provision for the cost of health and safety measures during the execution of the <b>works</b> . The <b>contractor</b> shall price opposite this item for compliance with the act and the regulations and the reasonable provisions of the aforementioned health and safety specification [2.1]  Health and safety  Without limiting the generality of the provisions of clause 2.0, the <b>contractor's</b> attention is drawn to the provisions of the Construction Regulations issued in terms of the Occupational Health and Safety Act, 1993 as amended. It is specifically stated that the <b>employer</b> shall prepare a documented health and safety specification for the <b>works</b> (refer to Annexures for a copy of the relevant specification) and that the <b>employer</b> shall ensure that the <b>contractor</b> has made provision for the cost of health and safety measures during the execution of the <b>works</b> . The <b>contractor</b> shall price opposite this item for compliance with the act and the regulations and the provisions of the aforementioned health and safety specification [2.1]		
Carried to collection  Bill No. 1 PRELIMINARIES BID NO.: DOE14NWER015A	R	_

	The <b>contractor</b> shall:			
	<ol> <li>Comply with the health and safety specification for the works</li> </ol>			
	<ol><li>Prepare and agree with the health and safety consultant the health and safety plan for the works</li></ol>			
	3. Cooperate with the health and safety consultant in all respects			
	4. Manage the compliance of all subcontractors with the regulations and with the health and safety plan and specification			
	<ol> <li>Conform to the conditions contained in the employer's health and safety specification</li> </ol>			
	F: V:	Item		
81	Advertising rights			
	The <b>employer</b> may elect to contract with advertising agencies for the erection of advertising hoardings, banners, wraps or the like for the duration of the contract. The <b>contractor</b> shall not prevent such an arrangement and will assist in the facilitation of same. The position and type of advertising structure to be agreed with the <b>principal agent</b> so as not to hinder the <b>contractor</b> in meeting his obligations under this <b>agreement</b>			
	F: V:T:	Item		
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82	Confidentiality			
	The <b>contractor</b> undertakes to maintain in confidence any and all information regarding this project and shall obtain appropriate similar undertakings from all <b>subcontractors</b> and suppliers. Such information shall not be used in any way except in connection with the execution of the <b>works</b>			
	No information regarding this project shall be published or disclosed without the prior written consent of the <b>employer</b>			
	F: V:T:	Item		
83	Media releases			
	All rights of publication of articles in the media, together with any advertising relating thereto or in any way connected with this project, shall vest with the <b>employer</b>			
	The <b>contractor</b> together with his <b>subcontractors</b> shall not, without the prior written consent of the <b>employer</b> , cause any statement or advertisement connected with this project to be printed, screened or aired by the media			
	F: V:T:	Item		
84	COMMUNITY EMPOWERMENT  TDT' has taken a strategic decision to promote transformation in line with its SCM Policy. Based on the above tenderer must promote Supplier Development through involving Small Business Enterprises residing within the municipal ward			
	F: V: T:	Item		
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85	COMMUNITY DEVELOPMENT PROGRAMME  TDT' has taken a strategic decision to promote community development in line with its SCM Policy.  Based on the above tenderer must promote Supplier  Development through involving Small Business  Enterprises residing within the municipal ward.  Special reference is made to the Contract Data section in terms of sub-contracting  F:			
	T:	Item		
86	The Employer shall determine the amount to be paid to the Enterprise Development Co-Ordinator for the Contract Participation Goal (CPG) on the contract and this amount shall be stated under the section Enterprise Development	Item		
87	The contractor shall be paid as follows: These are recommended rates, client may change depending on the location of the project, complexity etc.	Item		
88	Needs analysis and enterprise development plan per targeted enterprise	Item		20,000.00
89	Mentor and interim reporting per targeted enterprise, reports will be required per quarter	Item		160,000.00
90	Project completion report per targeted enterprise	Item		20,000.00
	SUMMARY OF CATEGORIES			
	Category: Fixed R			
	Category: Value R			
	Category: Time R			
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ABBREVIATIONS		
C.M. Shall mean cubic metre S.M. Shall mean square metre L.M. Shall mean linear metre MM Shall mean Millimetre Kg. Shall mean Kilogramme No. Shall mean Number Prs. Shall mean Pairs LI Shall mean Labour Intensive S.S.M Shall mean the Standard System of Measuring Building works Ditto -Shall mean the whole of the preceding description except as qualified in the description in which it occurs. m.s - Shall mean measured separately. Provisional sum-shall mean a cost to cater for all		
the described item(s)		
EMPLOYER: The Independent Development Trust		
4071 Joules Street Industrial Site Mahikeng 2735		
PRINCIPAL AGENT:		
Tiki Architects		
P. O Box 4922 Mmabatho Tel: 018 381 7895 Email: info@tikiarchitects.co.za		
Carried to collection	F	
Bill No. 1 PRELIMINARIES BID NO.: DOE14NWER015A		
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CONTRACTIN	G AND OTHER PARTIES		
Employer : <b>Th</b>	e Independent Development Trust		
4071 Joules S Industrial Site Mahikeng 2735			
Principal Agen	:: Tiki Architects		
P. O Box 4922 Mmabatho Tel: 018 381 Email: info@t			
Agent (1): Arch	itect		
Tiki Architect	s		
P. O Box 4922 Mmabatho Tel: 018 381 Email: info@t			
Agent (2): Qua	ntity Surveyor		
GT Chaane Managers CC	Quantity Surveyors and Project		
51 Tillard Str Golf View Mahikeng 2745	eet		
Bill No. 1	Carried to collection	R	-
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Agent (3): Civil Engineers	1			
Maru A Pula Engineers				
14 Tillard Street				
Mafikeng 2745				
South Africa				
Agent (4):Electrical Engineer				
HDM Engineering				
Unit 6				
Golf Garden Office Park  1 Marco Polo Street				
T MARCO TOTO SCIENCE				
Agent (5): Structural Engineer				
Maru A Pula Engineers				
Mara A Tula Digilicois				
14 Tillard Street				
Mafikeng 2745				
South Africa				
Agent (6): Occupational Health and Safety				
Mamanthati Training and Projects (Pty) Ltd				
Unit 114 Lifestyle Estate Bougainville Road				
Montana Park				
0182				
				—
Carried to collection		R		
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PRELIMINARIES BID NO.: DOE14NWER015A				

CONTRACT DETAILS		
Works description:		
The scope of works comprises the demolition of asbestos structures, construction of 4x boys and 5x girls' hostels, Construction of 4x Staff Houses, Hostel Administration block, 2x Guard Houses, Hostel Master & Mother Houses and construction of other facilities and external works.		
Site description:		
The site is located on 6 Potgieter Street, Rietfontein Plaas, Rustenburg, 0300, North West Province, South Africa		
Work or installations by direct contractors		
Refer to Contract Data		
Possession of the <b>site</b> is intended to be given on:		
As per contract data		
Period for the commencement of the Works after the		
Contractor takes possession of the site		
24 months (To be calculated in calendar days)		
Carried to collection	R	
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For the works as a whole:		
The date for practical completion and the liquid damages per calendar day.		
The work programme and cash-flow to be submitted within seven calender days after site possession and will form part of the deliverable milestones. Failure to meet these shall be deemed to be in breach of contract. Should the contractor fail to submit both within this period, the Project manager shall impose both and the contractor shall have seven working days to counter such with an acceptable programme and cash-flows. Acceptability shall be solely decided by the Project manager		
Date for practical completion:		
24 months (To be calculated in calendar days) from site possession		
Penalties per calendar day:		
0.05% of the contract sum excluding VAT round up to the nearest R10		
For the works in sections:		
Not applicable.		
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Total Brought Forward from Page No.	41		
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	SECTION NO. 2				
	BILL NO. 1				
	DEMOLITIONS AND ALTERATIONS (PROVISIONAL)				
	PREAMBLES				
	For preambles see "Model Preambles for Trades"				
	<b>NOTE</b> : Work Group No 102 for JBCC CPAP purposes				
	SUPPLEMENTARY PREAMBLES				
	<u>View site</u>				
	Before submitting his tender the tenderer shall visit the site and satisfy himself as to the nature and extent of the work to be done and the value of the materials salvageable from the alterations. No claim for any variations of the contract sum in respect of the nature and extent of the work or of inferior or damaged materials will be entertained				
	<u>Explosives</u>				
	No explosives whatsoever may be used for alteration purposes unless otherwise stated				
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	Carried to collection		R		=
	Bill No. 1 ALTERATIONS AND DEMOLITIONS (PROVISIONAL) BID NO.: DOE14NWER015A				_

Gener	<u>al</u>		
works with a buildi tenan provio tempo durin	ontractor shall carry out the whole of the with as little mess and noise as possible and a minimum of disturbance to tenants in the ng and to adjoining premises and their ts. He shall provide proper protection and le, erect and remove when directed, any prary tarpaulins that may be necessary to the progress of the works, all to the action of the principal agent		
etc., emplo stored	ximately 5km to store and handed over to the		
etc w overh easing requir and o neces or sul holes unles	, fanlights, windows, fittings, frames, linings, hich are to be re-used shall be thoroughly auled before refixing including taking off, g and rehanging, cramping up, re-wedging as red and making good cramps, dowels, etc, iling, adjusting and repairing ironmongery as sary, replacing any glass damaged in removal osequently and stopping up all nail and screw with tinted plastic wood to match timber, as otherwise described. Re-painting or reshing is given separately		
includ	for taking out of doors, windows, etc shall le for removal of all beads, architraves, ongery, etc		
	for taking out and removing doors and s shall include for removing door stops, cabin , etc		
walls,	regard to building up of openings in existing cement screeds and pavings, granolithic, of walls, etc, shall be levelled and prepared for g of brickwork		
	Carried to collection  o. 1 RATIONS AND DEMOLITIONS (PROVISIONAL) O.: DOE14NWER015A	R	

	Making good of finishes shall include making good of the brick and concrete surfaces onto which the new finishes are applied, where necessary  The contractor will be required to take all dimensions affecting the existing buildings on the site and he will be held solely responsible for the accuracy of all such dimensions where used in the manufacture of new items (doors, windows, fittings, etc.)  TEMPORARY BARRIERS, SCREENS, ETC  Temporary hoarding fence around building to				
	be constructed including erection and dismantling at contract completion				
1	Dust screen 2,85m high between concrete floor and ceiling formed of suitable timber framing with 375 micron polyethylene sheeting stapled on, including corners, ends, etc	m	508		
2	2400mm high diamond mesh with and including shade cloth covering the sides, including all the corners, straining and support posts, droppers, straining wire, earthworks and necessary concrete bases, etc.	m	1,009		
3	2400mm High x 5000mm wide diamond mesh clad vehicle gate, with frame, straining wire bolts and lock sets, earthworks and necessary concrete bases, executed complete.	No	2		
	RELOCATION OF EXISTING STRUCTURES				
4	Removal of the existing temporary accommodation structures  Relocate the existing temporary prefabricated accommodation structures, including all plumbing and drainage pipes to a position identified by the user client.	No	5		
	REMOVAL OF EXISTING WORK				
	Carried to collection  Bill No. 1  ALTERATIONS AND DEMOLITIONS (PROVISIONAL)  BID NO.: DOE14NWER015A			R	

	Breaking up and removing mass concrete				
5	Concrete walkways	m³	99		
6	Steps	m³	6		
	Breaking up and removing reinforced concrete including cutting off and removing reinforcement				
7	Mass concrete	m³	398		
	Breaking down and removing brickwork, etc.				
8	Mass brickwork	m³	29		
9	Half brick walls	m²	12		
10	One brick walls	m²	20		
11	Existing paving bricks	m²	50		
	Carried to collection  Bill No. 1 ALTERATIONS AND DEMOLITIONS (PROVISIONAL) BID NO.: DOE14NWER015A			R	

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	Section No. 2				
	Bill No. 1				
	ALTERATIONS AND DEMOLITIONS (PROVISIONAL)				
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,	Total Brought Forward from Page No.	47			
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Item No		Quantity	Rate	Amount R	
	SECTION NO. 2				
	BILL NO. 2				
	EARTHWORKS (PROVISIONAL)				
	PREAMBLES				
	For preambles see "Model Preambles for Trades"				
	<b>NOTE</b> : Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No 104 for JBCC CPAP purposes				
	SUPPLEMENTARY PREAMBLES				
	Nature of ground				
	The nature of the ground is assumed to be loose sandy material, therefore "earth", but possibly interspersed with "hard rock" or "soft rock".				
	The nature of the ground is assumed to be gravel, therefore "earth", but possibly interspersed with "soft rock".				
	The nature of the ground is assumed to be silty clay with loose river boulders varying in size up to approximately 450mm diameter, therefore "earth", but possibly interspersed with "hard rock".				
	Trial holes indicate that the nature of the ground is silty clay to a depth of approximately 500mm with fine to medium loose sandy material below, therefore "earth". The trial holes also indicate that the water table is at a maximum depth of approximately 1000mm.				
	Carried to collection  Bill No. 2 EARTHWORKS (PROVISIONAL) BID NO.: DOE14NWER015A		R		

	A soils investigation has been carried out on site by the engineer and the report is available at the offices of the civil engineers. Descriptions of excavations shall be deemed to include all ground conditions classifiable as "earth" described in the above report and where conditions of a more difficult character are indicated these are separately measured  Carting away of excavated material  Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site.  Filling  Notwithstanding the reference to prescribed multiple handling in clause 1 page 6 of the				
	Standard System of Measuring Building Work, prices for filling and backfilling shall include for all selection and any multiple handling of material.				
	SITE CLEARANCE				
	Site clearance				
12	Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 200mm girth, bush, etc.	m²	23,730		
13	Stripping average 150mm thick layer topsoil plus 200mm in-situ material and stockpile on site.	m²	23,730		
	REMOVAL OF TREES				
	Taking out and removing, grubbing up roots and filling in holes				
14	Tree stump exceeding 200mm and not exceeding 500mm girth	No	20		
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	Bill No. 2 EARTHWORKS (PROVISIONAL) BID NO.: DOE14NWER015A				

15	Tree stump exceeding 500mm and not exceeding 1000mm girth	No	10		
16	Tree stump exceeding 1000mm and not exceeding 1500mm girth	No	8		
17	Tree stump exceeding 1500mm and not exceeding 2000mm girth	No	10		
	EXCAVATION, FILLING, ETC.				
	Excavation in earth not exceeding 2m deep				
18	Trenches	m³	807		
19	Reduced levels under floors	m³	132		
	Extra over trench excavation in earth for excavation in				
20	Soft rock	m³	83		
21	Hard rock	m³	42		
	Extra over all excavations for carting away				
22	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m³	944		
	Risk of collapse of excavations				
23	Sides of trench and hole excavations not exceeding 1,5m deep	m²	9,390		
	Keeping excavations free of water				
24	Keeping excavations free of all water other than subterranean water		Item		
	FILLING, ETC.				
	Carried to collection  Bill No. 2  EARTHWORKS (PROVISIONAL)  BID NO.: DOE14NWER015A			R	

	Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO density				
25	Backfilling to trenches, holes, etc.	m³	241		
	Earth filling G7 (MinCBR at 93% Mod AASHTO = 25; Max PI = 10) supplied by the contractor compacted to 93% Mod AASHTO density				
26	Under floors, steps, pavings, etc.	m³	1,046		
	Compaction of surfaces				
27	Compaction of ground surface under floors etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m²	6,718		
	Prescribed density tests on filling				
28	"Modified AASHTO Density" test	No	254		
	SOIL POISONING				
	Soil insecticide to surfaces and appropriate soil poisoning certificate SANS 0124 to be provided.				
29	Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m²	8,718		
30	To bottoms and sides of trenches, etc.	m²	10,340		
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Item No		Quantity	Rate	Amount R
	SECTION NO. 2			
	BILL NO. 3			
	CONCRETE, FORMWORK AND			
	REINFORCEMENT			
	PREAMBLES			
	For preambles see "Model Preambles for Trades"			
	<u>NOTE</u> : Work Group No 110 for JBCC CPAP purposes			
	SUPPLEMENTARY PREAMBLES			
	Cost of tests			
	The costs of making, storing and testing of concrete test cubes as required under clause 7 "Tests" of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the architect. The testing shall be undertaken by an independent firm or institution nominated by the contractor to the approval of the architect. (Test cubes are measured separately)  Breeze concrete shall consist of twelve parts clean dry furnace ash, free from coal or other foreign matter, to one part cement (12:1), the ash graded up to particles which will pass a 16,5mm ring from a minimum which fails to pass a 4.75mm mesh			
	a minimum which fails to pass a 4,75mm mesh. The finer materials from the screening are to be first mixed with the cement into a mortar and the ash added afterwards and thoroughly incorporated			
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	Formwork to sides of bases, pile caps, ground beams, etc will only be measured where it is prescribed by the engineer for design reasons. Formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision for which is made in "Earthworks"  Soilcrete shall consist of hillwash mixed with 6% ordinary Portland cement with a minimum strength of 1,5MPa. The hillwash may not contain				
	fragments larger than 100mm and the silt and clay fraction shall be less than 20%. The engineer shall decide on site which hillwash may be used in the soilcrete.				
	The hillwash and Portland cement shall be mixed on site using suitable concrete mixers. Only sufficient water shall be added to give a consistency that will permit the placing of the soilcrete using vibrators.				
	SOILCRETE (PROVISIONAL)				
	Soilcrete				
31	Backfilling below bases	т³	115		
	UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES (PROVISIONAL)				
	10MPa/19mm concrete				
32	Surface blinding under footings and bases	m³	50		
	20MPa/19mm concrete				
33	Thickening down apron on edge 110 x 200mm wide, including all necessary excavations, backfilling and compacting. (Provisional)	m	2,942		
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	REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES (PROVISIONAL)				
	25MPa/20mm concrete				
34	Strip footings	m³	89		
	30MPa/19mm concrete				
35	Raft foundation slabs cast in panels on waterproofing	m³	777		
36	Raft foundation beams	m³	684		
	UNREINFORCED CONCRETE				
	20MPa/19mm reinforced concrete				
37	Rainwater aprons	т³	119		
38	Rainwater disposal channels	m³	4		
	REINFORCED CONCRETE				
	30MPa/12mm concrete				
39	Surface beds cast in panels on waterproofing	m³	57		
40	Ring Beam	m³	2		
41	Ramps	m³	7		
	TEST CUBES (PROVISIONAL)				
42	Allow for making set of three 150 x 150 x 150mm test cubes.	Sets	252		
	CONCRETE SUNDRIES				
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	Finishing top surfaces of concrete with a coarse hard grass broom	Ì			
43	Aprons laid to falls	m²	2,606		
44	Rainwater disposal	m²	24		
	Finishing top surfaces of concrete smooth with a wood float				
45	Surface beds, slabs, etc.	m²	5,903		
46	Ramps, ramp slabs, etc. to falls	m²	93		
	FORMWORK				
	<b>NOTE</b> : Work Group No 111 for JBCC CPAP purposes				
	ROUGH FORMWORK (DEGREE OF ACCURACY II)				
	Rough formwork to sides				
47	Strip footings (Provisional)	m²	886		
48	Foundation beams (Provisional)	m²	8,504		
49	Beams	m²	21		
50	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	4,347		
	MOVEMENT JOINTS, ETC.				
	Expansion joints with bitumen-impregnated softboard between vertical concrete and brick surfaces				
51	10mm Joints not exceeding 300mm high or wide	m	4,784		
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	Saw cut joints				
52	6mm Saw cut joints in top of concrete	m	354		
	REINFORCEMENT (PROVISIONAL)				
	<u>NOTE</u> : Work Group No 114 for JBCC CPAP purposes				
	Mild steel reinforcement to structural concrete work				
53	8mm Diameter bars	t	7.87		
54	20mm Diameter bars	t	7.87		
	High tensile steel reinforcement to structural concrete work				
55	8mm Diameter bars	t	11.80		
56	10mm Diameter bars	t	11.80		
57	12mm Diameter bars	t	11.80		
58	16mm Diameter bars	t	11.80		
59	20mm Diameter bars	t	7.87		
60	25mm Diameter bars	t	3.93		
61	32mm Diameter bars	t	3.93		
	Fabric reinforcement				
62	Type 193 fabric reinforcement in concrete surface beds, slabs, etc.	m²	107		
63	Type 245 fabric reinforcement in concrete surface beds, slabs, etc.	m²	5,228		
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	BILL NO. 4				
	MASONRY				
	PREAMBLES				
	For preambles see "Model Preambles for Trades"				
	<u>NOTE</u> : Work Group No 118 for JBCC CPAP purposes				
	SUPPLEMENTARY PREAMBLES				
	BRICKWORK				
	Sizes in descriptions				
	Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick				
	Hollow walls, etc.				
	Descriptions of hollow walls shall be deemed to include wall ties and leaving every fifth perpend of the bottom course of the external skin open as a weep hole				
	Reinforced brick lintels				
	Lintels shall bear at least 160mm onto adjacent walling. Where such bearing cannot be obtained due to the proximity of adjacent openings the lintel shall be continuous				
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DECORATIVE BLOCKS				
Blocks shall be of approved manufacture, sound, well burnt or cured and uniform and true in size, shape and colour				
"WINBLOK" MODULAR PRECAST CONCRETE WINDOW SURROUNDS				
<u>General</u>				
Window surrounds shall be built into brick walls and pointed all round on both sides with 10 x 10mm square recessed joints				
Prices shall include for building in as single units or combinations in patterns of two or more window units and for bedding solid all round in mortar and pointing				
<u>Note</u>				
Aluminium infill windows, glazing and pointing with sealing compound are measured elsewhere				
SAMPLES				
Samples of all masonry building units, shall consist of a minimum of 6 units				
PAVINGS				
Quarry tiles, precast concrete, cement, terrazzo and similar tiles				
Tiles shall be of approved manufacture, well burnt or cured, and uniform and true in size, shape and colour				
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Preparation of concrete floor beds, slabs, etc. for pavings			
Concrete surfaces shall be hacked (preferably by mechanical means) until all laitance, dirt, oil, etc is dislodged and swept clean of all loose matter. Surfaces shall then be wetted and kept damp for at least six hours before slushing with 1:2 cement/sand and while still wet, pavings, etc. shall be laid on a 1:4 cement mortar bed not exceeding 25mm thick. Sand shall be clean, sharp river sand			
Jointing of pavings			
Pavings, etc, shall, except for crazy paving, be laid with continuous joints in both directions			
STONEWORK			
Slate, marble, granite, etc.			
Slate, marble, granite, etc. is to be best quality stone from an approved quarry, free from cracks and other defects and equal to samples to be submitted to and approved by the architect. Each stone is to hold its full size, square to the back and to be set on its natural quarry bed			
Setting out			
Care shall be exercised in setting out the work, the preparation of templates and the checking of the detail drawings. All measurements shall be taken on the site where necessary and the full size setting out of each course shall be done at the yardso as to ensure the proper fitting of each stone			
Before putting any work in hand the contractor is to submit to the architect for his approval details of the manner in which he proposes to set out the slabs and joints in all wall facings, pavings, sills, treads, etc. together with samples of grain or pattern matching			
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Face labours  Face labours are to match samples to be submitted to and approved by the architect Arrises are to be clean and sharp except to treads and thresholds where they are to be slightly rounded			
Bedding and jointing			
Slate, marble, granite and other floor paving and wall linings are to be bedded solidly on the mortar thicknesses described and are to have tightly fitting butt joints unless otherwise stated Where stonework is to be fixed with adhesive, the adhesive is to be "TAL Goldstar/Bond" (mixed 20kg/5 litre) for external use or where white or light coloured marble is used, "TAL Goldstar" for internal use or other approved. The contractor will be liable for any defects to the slate, marble and granite arising from the use of the adhesive			
Where soffit linings are suspended the suspension system must be concealed and must be submitted to the architect for approval before work commences Where tolerance screws are required these are to be stainless steel expanding bolt type with matching stainless steel bracket and PVC clad dowel with nuts and washers, etc.			
Damaged work			
Any damaged stonework shall be discarded and replaced at the contractor's expense. No touching up will be permitted except in exceptional cases, with the architect's consent			
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	Descriptions				
	Descriptions of stonework shall be deemed to include preparatory work, labours to backs, beds and joints, templates, mortices for bolts etc and for hoisting and setting in position, bedding, jointing and pointing, casing and protecting from injury and cleaning down at completion. Descriptions of recessed pointing to stonework shall be deemed to be square recessed, hollow recessed, weathered pointing, etc.				
	FOUNDATIONS (PROVISIONAL)				
	Brickwork of NFPE bricks (17 MPa nominal compressive strength) in class I mortar in loadbearing walls, etc.				
64	460 x 460 x 700mm High brick columns of one brick wall composition including 230 x 230mm cavity in-between	No	65		
65	One brick walls	m²	1,499		
	FACE BRICKWORK (PROVISIONAL)				
	Face brick (PC Amount R7000,00/1000) pointed with recessed horizontal and vertical joints. Face brick FBS in common running bond to comply with SABS 227 and forming part of the structural work and mortar joints keyed to approval.				
66	Extra over brickwork for face brickwork on foundations	m²	554		
	BRICKWORK SUNDRIES (PROVISIONAL)				
	Brickwork reinforcement				
67	75mm Wide reinforcement built in horizontally	m	8		
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68	150mm Wide reinforcement built in horizontally	m	7,307		
	SUPERSTRUCTURE				
	Brickwork of NFX bricks in class II mortar				
69	Piers	m³	26		
70	Half brick walls	m²	2,919		
71	Half brick walls in beamfilling	m²	304		
72	One brick walls	m²	6,225		
73	Two one brick walls	m²	148		
74	Perforated one brick walls	m²	287		
75	One Brick gable walls	m²	859		
76	One brick walls in beamfilling	m²	567		
	BRICKWORK SUNDRIES				
	Miscellaneous				
77	Fill top of pressed steel door frame not exceeding 300mm girth with cement mortar and trowel smooth	m	208		
78	150 x 150mm Weep holes to brickwork	No	32		
	Joint forming material in movement joints				
79	12mm Bitumen impregnated fibreboard built in vertically between brick skins	m²	416		
	Brickwork reinforcement (Provisional)				
80	75mm Wide reinforcement built in horizontally	m	16,906		
81	150mm Wide reinforcement built in horizontally	m	39,337		
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230mm Wide reinforcement built in horizontally	m	656		
Concrete prestressed fabricated lintels				
110 x 70mm Lintels in lengths not exceeding 3m	m	1,519		
Turning pieces				
230mm Wide turning piece to lintels, etc.	m	476		
Galvanised hoop iron cramps, ties, etc.				
30 x 1.2mm Wall tie 300mm girth, twice bent to detail with one end twice shot pinned to concrete and other end built into brickwork lining.	No	5,308		
30 x 1.2mm Wall tie 800mm long with one end twice shot pinned through joint filler to concrete and other end built into brickwork in foundations.	No	768		
30 x 1.6mm Roof tie 1.5m long with one end fixed to timber and other end built into brickwork.	No	2,562		
Air bricks, etc.				
Set of two 215 x 140 x 50mm Vermon proof Terracotta Air brick with louvred holes.	No	40		
FACE BRICKWORK				
Face brick (PC Amount R7000,00/1000) pointed with recessed horizontal and vertical joints. Face brick FBS in common running bond to comply with SABS 227 and forming part of the structural work and mortar joints keyed to approval.				
Extra over brickwork for face brickwork	m²	5,004		
Extra over brickwork for breeze wall face brickwork	m²	318		
Carried to collection  Bill No. 4  MASONRY  BID NO.: DOE14NWER015A			R	
	Concrete prestressed fabricated lintels  110 x 70mm Lintels in lengths not exceeding 3m  Turning pieces  230mm Wide turning piece to lintels, etc.  Galvanised hoop iron cramps, ties, etc.  30 x 1.2mm Wall tie 300mm girth, twice bent to detail with one end twice shot pinned to concrete and other end built into brickwork lining.  30 x 1.2mm Wall tie 800mm long with one end twice shot pinned through joint filler to concrete and other end built into brickwork in foundations.  30 x 1.2mm Roof tie 1.5m long with one end fixed to timber and other end built into brickwork.  Air bricks, etc.  Set of two 215 x 140 x 50mm Vermon proof Terracotta Air brick with louvred holes.  FACE BRICKWORK  Face brick (PC Amount R7000,00/1000) pointed with recessed horizontal and vertical joints. Face brick FBS in common running bond to comply with SABS 227 and forming part of the structural work and mortar joints keyed to approval.  Extra over brickwork for face brickwork  Extra over brickwork for breeze wall face brickwork  Carried to collection  Bill No. 4  MASONRY	Concrete prestressed fabricated lintels  110 x 70mm Lintels in lengths not exceeding 3m  Turning pieces  230mm Wide turning piece to lintels, etc.  m  Galvanised hoop iron cramps, ties, etc.  30 x 1.2mm Wall tie 300mm girth, twice bent to detail with one end twice shot pinned to concrete and other end built into brickwork lining.  30 x 1.2mm Wall tie 800mm long with one end twice shot pinned through joint filler to concrete and other end built into brickwork in foundations.  30 x 1.6mm Roof tie 1.5m long with one end fixed to timber and other end built into brickwork.  No  Air bricks, etc.  Set of two 215 x 140 x 50mm Vermon proof Terracotta Air brick with louvred holes.  No  FACE BRICKWORK  Face brick (PC Amount R7000,00/1000) pointed with recessed horizontal and vertical joints. Face brick FBS in common running bond to comply with SABS 227 and forming part of the structural work and mortar joints keyed to approval.  Extra over brickwork for face brickwork  Extra over brickwork for breeze wall face brickwork  m²  Carried to collection  Bill No. 4  MASONRY	Concrete prestressed fabricated lintels  110 x 70mm Lintels in lengths not exceeding 3m m 1,519  Turning pieces  230mm Wide turning piece to lintels, etc. m 476  Galvanised hoop iron cramps, ties, etc.  30 x 1.2mm Wall tie 300mm girth, twice bent to detail with one end twice shot pinned to concrete and other end built into brickwork lining.  No 5,308  30 x 1.2mm Wall tie 800mm long with one end twice shot pinned through joint filler to concrete and other end built into brickwork in foundations.  No 768  30 x 1.6mm Roof tie 1.5m long with one end fixed to timber and other end built into brickwork.  No 2,562  Air bricks, etc.  Set of two 215 x 140 x 50mm Vermon proof Terracotta Air brick with louvred holes.  No FACE BRICKWORK  Face brick (PC Amount R7000,00/1000) pointed with recessed horizontal and vertical ioints. Face brick FBS in common running bond to comply with SABS 227 and forming part of the structural work and mortar joints keyed to approval.  Extra over brickwork for face brickwork m² 5,004  Extra over brickwork for breeze wall face brickwork m² 318  Carried to collection  Bill No. 4  MASONRY	Concrete prestressed fabricated lintels  110 x 70mm Lintels in lengths not exceeding 3m m 1,519  Turning pieces  230mm Wide turning piece to lintels, etc. m 476  Galvanised hoop iron cramps, ties, etc.  30 x 1.2mm Wall tie 300mm girth, twice bent to detail with one end twice shot pinned to concrete and other end built into brickwork lining.  No 5,308  30 x 1.2mm Wall tie 800mm long with one end twice shot pinned through joint filler to concrete and other end built into brickwork in foundations.  No 768  30 x 1.6mm Roof tie 1.5m long with one end fixed to timber and other end built into brickwork.  No 2,562  Air bricks, etc.  Set of two 215 x 140 x 50mm Vermon proof Terracotta Air brick with louvred holes.  No FACE BRICKWORK  Face brick (PC Amount R7000,00/1000) pointed with recessed horizontal and vertical joints. Face brick PSB in common running bond to comply with SABS 227 and forming part of the structural work and mortar joints keyed to approval.  Extra over brickwork for face brickwork  Extra over brickwork for breeze wall face brickwork  Carried to collection  Bill No. 4  MASONRY

91	Extra over brickwork for face brickwork in beamfilling	m²	567		
92	Extra over brick columns for face brickwork	m²	34		
93	Extra over brickwork for brick-on-edge header course lintel	m	483		
94	Fair cutting and fitting around pipe not exceeding 50mm diameter	No	295		
95	Fair cutting and fitting around pipe exceeding 50mm and not exceeding 100mm diameter	No	102		
	Brick-on-edge header course copings, sills, etc. of Face bricks (PC Amount R7000/1000) pointed with recessed joints on all exposed faces				
96	Brick-on-edge coping to one brick wall.	m	580		
97	230mm wide brick-on-edge bull-nose	m	576		
98	230mm wide brick-on-edge bull-nose sills set sloping and slightly projecting	m	476		
99	Extra over ordinary brickwork for brick-on-edge lintel pointed on both sides and 220mm wide soffit.	m	576		
	FIBRE-CEMENT WINDOW SILLS				
100	Pressed fibre sills in single lengths bedded in mortar including metal fixing lugs, etc.  10 x 110mm Wide sills set sloping and slightly projecting	m	476		
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	SECTION NO. 2				
	BILL NO. 5				
	WATERPROOFING				
	PREAMBLES				
	For preambles see "Model Preambles for Trades"				
	<u>NOTE</u> : Work Group No 120 for JBCC CPAP purposes				
	SUPPLEMENTARY PREAMBLES				
	Waterproofing of roofs, basements, etc shall be laid under a ten year guarantee. Waterproofing to roofs shall be laid to even falls to outlets etc with necessary ridges, hips and valleys. Descriptions of sheet or membrane waterproofing shall be deemed to include additional labour to turn-ups and turn-downs				
	DAMP-PROOFING OF WALLS AND FLOORS				
	One layer of 375 micron black embossed polyethylene damp-proof course (SANS 952-1985 Type B) (Provisional)				
101	In walls	m²	1,830		
	One layer of 250 micron thick gunplus usb green damp-proof membrane (SANS 952-1985 Type C) sealed at laps with PVC self-adhesive tape				
102	Under surface beds	m²	17,796		
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	Shower waterproofing kit					
103	On shower floors including tu	rn-ups	m²	313		
	JOINT SEALANTS, ETC.					
	Miscelleneous sealing comp	<u>ounds</u>				
104	Polysulphide sealing compou and raking out filler board as	and including primer necessary	m	141		
	Clear silicone sealant (Provi	sional)				
105	Between wall finish and sanit	ary fittings	m	161		
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	ROOF COVERINGS, ETC.			
	PREAMBLES			
	For preambles see "Model Preambles for Trades"			
	<b>NOTE</b> : Work Group No 124 for JBCC CPAP purposes			
	SUPPLEMENTARY PREAMBLES			
	Descriptions of all roof coverings are deemed to include for all straight cutting			
	EMBOSSED PROFILED ROOFING			
	0,6mm Thick IBR roof sheeting with pre- painted finish and accessories fixed to timber purlins or rails in strict accordance with manufacturer's specifications.			
106	Roof coverings with pitches not exceeding 25 degrees <b>m</b>	5,889		
107	Standard 0.6mm thick metal ridge cappings with ridge closer.	<b>1</b> 539		
108	Hip capping 550mm girth	<b>1</b> 6		
109	Gable trim 550mm girth	524		
110	Narrow and broad flute closers 550mm girth	1,618		
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	ROOF VENTILATORS, GABLE ROOF END,				
	ETC.				
111	Purpose-made pre-painted triangular gable roof end approximately 4000mm deep and 1000mm high extreme	No	4		
	ROOF AND WALL INSULATION				
	Lightweight industrial grade reinforced aluminium foil based insulation				
112	50mm Non-combustible light weight industrial fibre glass Insulation material, with reinforced aluminium foil faced finish laid taut over purlins and fixed concurrent with roof covering, with galvanized steel straining wires at 300mm centres and tied down top and bottom after tensioning with galvanized hoop iron ties.	m²	5,889		
	galvanized noop non des.	***	3,007		
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	BILL NO. 7			
	CARPENTRY AND JOINERY			
	PREAMBLES			
	For preambles see "Model Preambles for Trades"			
	<b>NOTE</b> : Work Group No 126 for JBCC CPAP purposes			
	SUPPLEMENTARY PREAMBLES			
	Plate nailed timber roof truss construction			
	The following is applicable in respect of roof trusses:			
	a) Trusses are at maximum 1,20m centres. Roof covering is 0,6mm IBR profile sheeting on 50 x 75mm purlins. Ceilings are 6,4mm skimmed gypsum plasterboard sheeting on 38 x 38mm brandering. The references given in the descriptions refer to the respective types of trusses detailed on the architect's drawing numbered H100/015 accompanying these bills of quantities. The dimensions in the descriptions of the trusses are nominal and actual measurements shall be obtained from the architect and/or the site before design or fabrication commences			
	b) All roof trusses to be designed and constructed with softwood structural timber to include for live loads, wind loads and to take corrugated roof covering, purlins and fibre cement or gypsum plasterboard ceilings with brandering. Each roof truss shall have all its members accurately cut and close butted together and rigidly fixed by CSIR approved patented galvanised metal spiked connectors, fixed on both sides of each intersection			
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by an approved method, all in accordance with manufacturer's instructions.		
c) Unless otherwise described all rafter feet are to extend 500mm beyond the length of the tie beam on one side, and 610mm on the other side.		
d) The design, manufacture and transportation of the roof trusses, bracing, etc. shall be under the control of a registered engineer in accordance with SABS 0243 and it shall be required from the manufacturer of the truss to lodge a written guarantee that his construction has been designed by a qualified structural engineer and that he is in possession of a capability certificate issued by the Institute for Timber Construction and approved by the Representative Agent.		
e) The tenderer's attention is drawn to the fact that the detail drawings represent only the overall size and bearing points of the trusses and not the required design.		
f) Erection must be carried out as described in "The Erection and Bracing of Timber Roof Trusses" published by the Truss Plate Association of South Africa and the National Timber Research Institute.		
g) Descriptions of roof trusses shall be deemed to include for design, manufacture, supply, hoisting and fixing in position, trimming ends, notching, etc. and for temporary bracing		
Joinery		
Descriptions of frames shall be deemed to include frames, transomes, mullions, rails, etc.		
Descriptions of hardwood joinery shall be deemed to include pelleting of bolt holes		
Fixing		
Items described as "nailed" shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete		
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	Decorative laminate finish				
	Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish				
	ROOF CONSTRUCTION:				
	Plate nailed timber roof truss construction				
113	Roof construction to multi-pitched roof with no gable ends, 3475mm x 2700mm and 2350mm high overall with 800mm overhang on both sides including trusses at 17 degrees, spaced at minimum 1200mm centres to wall plate and to include permanent bracing (wall plates, purlins, etc. elsewhere). The trusses are to be fixed with 2 strands of 8 gauge galvanised wire anchors into wall up to walls to 8 brick courses deep. (GUARD HOUSE)	N.	2		
		No	2		
114	Roof construction to double pitched roof with two gable ends, 28820mm x 14831mm and 2350mm high overall with 800mm overhang on both sides including trusses at 17 degrees, spaced at minimum 1200mm centres to wall plate and to include permanent bracing (wall plates, purlins, etc. elsewhere). The trusses are to be fixed with 2 strands of 8 gauge galvanised wire anchors into wall up to walls to 8 brick courses deep. (HOSTEL TYPE 2A)				
		No	2		
115	Roof construction to double pitched roof with two gable ends, 20800mm x 14982mm and 2350mm high overall with 800mm overhang on both sides including trusses at 17 degrees, spaced at minimum 1200mm centres to wall plate and to include permanent bracing (wall plates, purlins, etc. elsewhere). The trusses are to be fixed with 2 strands of 8 gauge galvanised wire anchors into wall up to walls to 8 brick courses deep. (HOSTEL TYPE 1A)	N.	0		
		No	8		
	Carried to collection  Bill No. 7  CARPENTRY AND JOINERY  BID NO.: DOE14NWER015A			R	<del></del>

116	Roof construction to double pitched roof with two gable ends, 14647mm x 14370mm and 2350mm high overall with 800mm overhang on both sides including trusses at 17 degrees, spaced at minimum 1200mm centres to wall plate and to include permanent bracing (wall plates, purlins, etc. elsewhere). The trusses are to be fixed with 2 strands of 8 gauge galvanised wire anchors into wall up to walls to 8 brick courses deep. (TV ROOM)	No	2		
117	Roof construction to double pitched roof with two gable ends, 13740mm x 9000mm and 2350mm high overall with 800mm overhang on both sides including trusses at 17 degrees, spaced at minimum 1200mm centres to wall plate and to include permanent bracing (wall plates, purlins, etc. elsewhere). The trusses are to be fixed with 2 strands of 8 gauge galvanised wire anchors into wall up to walls to 8 brick courses deep. (HOSTEL MASTER)	No	2		
118	Roof construction to double pitched roof with two gable ends, 24250mm x 15000mm and 2350mm high overall with 800mm overhang on both sides including trusses at 17 degrees, spaced at minimum 1200mm centres to wall plate and to include permanent bracing (wall plates, purlins, etc. elsewhere). The trusses are to be fixed with 2 strands of 8 gauge galvanised wire anchors into wall up to walls to 8 brick courses deep. (HOSTEL ADMIN)	No	1		
	Carried to collection  Bill No. 7  CARPENTRY AND JOINERY  BID NO.: DOE14NWER015A			R	

119	Roof construction to double pitched roof with two gable ends, 24110mm x 9530mm and 2350mm high overall with 800mm overhang on both sides including trusses at 17 degrees, spaced at minimum 1200mm centres to wall plate and to include permanent bracing (wall plates, purlins, etc. elsewhere). The trusses are to be fixed with 2 strands of 8 gauge galvanised wire anchors into wall up to walls to 8 brick courses deep. (STAFF HOUSES)	No	4		
	SUNDRY ROOF TIMBERS:				
	Sawn softwood (Grade 4):				
120	38 x 114mm Wall plate.	m	1,669		
121	38 x 228mm Cat walk.	m	539		
122	38 x 114mm Geyser platform.	m	61		
123	38 x 228mm Gang boarding	m	1,564		
124	50 x 76mm Purlin SA pine purlins spaced as shown at maximum 1200mm centres.	m	15,129		
125	76 x 76mm Splayed purlins.	m	2,650		
126	"Hurricane clip" between truss and purlins.	No	77,529		
	Wood Preservative:				
127	Two coats creosote on sawn and wrought timbers.	m²	884		
	ROOF SUNDRIES:				
	Wrought Softwood (Grade 4):				
128	50 x 76mm Barge board support.	m	979		
	EAVES, VERGES, ETC.				
	Carried to collection  Bill No. 7  CARPENTRY AND JOINERY  BID NO.: DOE14NWER015A			R	

	Pressed fibre cement				
129	$10\ x\ 225$ mm Fascia and barge board including galvanised steel H-profile jointing strips screwed to rafter ends and $114\ x\ 38$ mm SA pine cleats	m	1,741		
	<u>skirtings</u>				
	Wrought meranti				
130	19 x 76mm Skirting nailed to walls with heads of nails punched and filled including 19mm quadrant bead planted on at junction with floor.	m	3,561		
	DOORS				
	Guard House				
	Oak veneer solid door framed, braced and ledged batten door formed of 40 x 110mm styles and top rail, 20 x 225mm bottom ledge, 20 x 150mm middle ledge and 20 x 110mm diagonal braces, filled in flush one side with 20 x 75mm tongued, grooved and V-jointed both sides vertical boarding fixed in and including grooves in styles and top rail and weatherbar plugged to bottom rail with 3mm plywood backing (CKS Type)				
131	40 x 813x 2032mm Door (DGH01)	No	2		
	Solid flush door with hardwood concealed edge and 3mm thick masonite panels to both sides suitable				
132	40 x 813x 2032mm Door (DGH02)	No	2		
	Type 2A Hostel				
	Carried to collection			R	
	Bill No. 7 CARPENTRY AND JOINERY BID NO.: DOE14NWER015A				

	Oak veneer solid door framed, braced and ledged batten door formed of 40 x 110mm styles and top rail, 20 x 225mm bottom ledge, 20 x 150mm middle ledge and 20 x 110mm diagonal braces, filled in flush one side with 20 x 75mm tongued, grooved and V-jointed both sides vertical boarding fixed in and including grooves in styles and top rail and weatherbar plugged to bottom rail with 3mm plywood backing (CKS Type)				
133	40 x 1200 x 2032mm Door (D2AH01)	No	2		
	Solid flush door with concealed hardwood edges faced both sides with Wrought Meranti Veneer hung to steel frames				
134	40 x 813 x 2032mm Door (D2AH04)				
		No	7		
135	40 x 813 x 2032mm Door (D2AH02)	No	29		
136	40 x 900 x 2032mm Door (D2AH03)				
		No	4		
	Semi solid flush door with concealed hardwood edges faced both sides hung to steel frames				
137	40 x 1600 x 2032mm Door (D2AH06)				
		No	2		
	Fire doors:				
138	44 x 813 x 2032mm Door (D2AH04)				
		No	3		
					_
	Bill No. 7 CARPENTRY AND JOINERY			R	
	BID NO.: DOE14NWER015A				

139	Class B fire door size 1200 x 2032mm high in accordance with SABS 1253 including pressed steel door frame to suit one brick wall complete with hoop iron anchors welded to frame, one adjustable stainless steel striking plate suitable for mortice lock, three rubber shock absorbers in rebate and one and a half pairs of 100mm heavy duty flanged hinges including preparing frame for door closer. (D2AH05)	No	4		
	Type 1A Hostel				
	Oak veneer solid door framed, braced and ledged batten door formed of 40 x 110mm styles and top rail, 20 x 225mm bottom ledge, 20 x 150mm middle ledge and 20 x 110mm diagonal braces, filled in flush one side with 20 x 75mm tongued, grooved and V-jointed both sides vertical boarding fixed in and including grooves in styles and top rail and weatherbar plugged to bottom rail with 3mm plywood backing (CKS Type)				
140	44 x 813x 2032mm Door (D01)	No	24		
	Solid flush door with hardwood concealed edge and 3mm thick masonite panels to both sides suitable				
141	44 x 813x 2032mm Door (D02)	No	128		
	44mm Solid flush door with concealed hardwood edges faced both sides with Wrought Meranti Veneer hung to steel frames				
142	44 x 900 x 2032mm Door (Paraplegic) (D03)	No	16		
	Carried to collection  Bill No. 7  CARPENTRY AND JOINERY  BID NO.: DOE14NWER015A			R	<u> </u>

143	44 x 900 x 2032mm Door (D04)	No	48		
	Semi solid flush door with concealed hardwood edges faced both sides hung to steel frames				
144	40 x 1600 x 2032mm Door (D2AH06)	No	80		
	Fire doors:				
145	Class B fire door size 813 x 2032mm high in accordance with SABS 1253 including pressed steel door frame to suit one brick wall complete with hoop iron anchors welded to frame, one adjustable stainless steel striking plate suitable for mortice lock, three rubber shock absorbers in rebate and one and a half pairs of 100mm heavy duty flanged hinges including preparing frame for door closer.	No	16		
	TV Room				
	Oak veneer solid door framed, braced and ledged batten door formed of 40 x 110mm styles and top rail, 20 x 225mm bottom ledge, 20 x 150mm middle ledge and 20 x 110mm diagonal braces, filled in flush one side with 20 x 75mm tongued, grooved and V-jointed both sides vertical boarding fixed in and including grooves in styles and top rail and weatherbar plugged to bottom rail with 3mm plywood backing (CKS Type)				
146	44 x 1200 x 2032mm Door (D01)	No	4		
147	44 x 813x 2032mm Door (D02)	No	8		
	Carried to collection  Bill No. 7  CARPENTRY AND JOINERY  BID NO.: DOE14NWER015A			R	

hardwood edges faced both sides with Wrought Meranti Veneer hung to steel frames				
44 x 813x 2032mm Door (D02)	No	2		
44 x 813x 2032mm Door (D03)	No	4		
Hostel Master				
Oak veneer solid door framed, braced and ledged batten door formed of 40 x 110mm styles and top rail, 20 x 225mm bottom ledge, 20 x 150mm middle ledge and 20 x 110mm diagonal braces, filled in flush one side with 20 x 75mm tongued, grooved and V-jointed both sides vertical boarding fixed in and including grooves in styles and top rail and weatherbar plugged to bottom rail with 3mm plywood backing (CKS Type)				
44 x 813x 2032mm Door (DHM01)	No	2		
44mm Solid flush door with concealed hardwood edges faced both sides with Wrought Meranti Veneer hung to steel frames				
44 x 813x 2032mm Door (DHM02)	No	2		
44 x 813x 2032mm Door (DHM03)	No	10		
44 x 813x 2032mm Door (DHM04)	No	4		
Carried to collection Bill No. 7			R	
CARPENTRY AND JOINERY BID NO.: DOE14NWER015A				

154	Class B fire door size 813 x 2032mm high in accordance with SABS 1253 including pressed steel door frame to suit one brick wall complete with hoop iron anchors welded to frame, one adjustable stainless steel striking plate suitable for mortice lock, three rubber shock absorbers in rebate and one and a half pairs of 100mm heavy duty flanged hinges including preparing frame for door closer.	No	2		
	Hostel Administration				
	Oak veneer solid door framed, braced and ledged batten door formed of 40 x 110mm styles and top rail, 20 x 225mm bottom ledge, 20 x 150mm middle ledge and 20 x 110mm diagonal braces, filled in flush one side with 20 x 75mm tongued, grooved and V-jointed both sides vertical boarding fixed in and including grooves in styles and top rail and weatherbar plugged to bottom rail with 3mm plywood backing (CKS Type)				
155	44 x 813x 2032mm Door (D05)	No	1		
156	44 x 1600x 2032mm Door (D01)	No	1		
	44mm Solid flush door with concealed hardwood edges faced both sides with Wrought Meranti Veneer hung to steel frames				
157	44 x 813x 2032mm Door (D02)	No	10		
158	44 x 813x 2032mm Door (With 150mm opening)				
	(D04)	No	2		
	Carried to collection			R	
	Bill No. 7 CARPENTRY AND JOINERY BID NO.: DOE14NWER015A			K	

159	44 x 1700x 2032mm Door (D03)	No	1		
	Staff House				
	Oak veneer solid door framed, braced and ledged batten door formed of 40 x 110mm styles and top rail, 20 x 225mm bottom ledge, 20 x 150mm middle ledge and 20 x 110mm diagonal braces, filled in flush one side with 20 x 75mm tongued, grooved and V-jointed both sides vertical boarding fixed in and including grooves in styles and top rail and weatherbar plugged to bottom rail with 3mm plywood backing (CKS Type)				
160	44 x 813x 2032mm Door (DSH01)	No	16		
	44mm Solid flush door with concealed hardwood edges faced both sides with Wrought Meranti Veneer hung to steel frames				
161	44 x 813x 2032mm Door (DSH02)	No	68		
	<u>FITTINGS</u>				
	<u>General</u>				
	The following cupboard fittings have been measured as complete units i.e. the components of the units have not been separately measured. The descriptions, therefore, of such units shall be deemed to include all components, assembling, housing, notching, glueing, blocking, planting on and screwing with countersunk screws, edge strips, decorative plastic finish, glass, ironmongery, metalwork, paint or varnish finishes, etc.				
	Carried to collection  Bill No. 7  CARPENTRY AND JOINERY  BID NO.: DOE14NWER015A			R	

	Benches, etc.				
162	Wooden bench size 8 875 x 505 x 520mm high comprising tops, bottoms, sides, divisions, brackets, etc. as per architect specification	No	85		
	Hostel Administration				
	Computer & Waiting Area				
163	30mm Thick Rustenburg black granite or similar approved worktop 600mm wide per architects drawing <b>no.MCS-PHS-2AH1-602 sheet no.1</b>	m	14		
164	Drawer unit size 200 x 470mm high drawer unit with 16mm thick supawood with postformed vertical edges, both faces laminated, top, bottom of door edges in 2mm thick PVC edging with an aluminium leg support as per architect's drawing no.MCS-PHS-1AH1-602 sheet no.1 and no.2	No	22		
165	50mm thick dividing board	m	44		
200	Cupboard shelving				
166	400mm wide x 16mm thick mdf supawood partition and shelving fixed to 50mm x 20mm mdf supawood cleats all with approved veneer to Architect approval	m	7		
167	550mm wide x 16mm thick mdf supawood partition and shelving fixed to 50mm x 20mm mdf supawood cleats all with approved veneer to Architect approval	m	2		
	Type 2A Hostel				
	Kitchen cupboards, etc.				
168	600 x 30mm Thick Rustenburg black granite or similar approved worktop 605mm wide,815mm high from floor with two 50mm aluminium leg support as per architect's drawing <b>no.MCS-PHS-2AH1-602 sheet no.3</b>	m	4		
					_
	Carried to collection			R	
	Bill No. 7 CARPENTRY AND JOINERY BID NO.: DOE14NWER015A				

169	Drawer unit size 700mm x 600mm x 900mm high with 16mm mdf supawood or similar approved fronts and 3mm thick pvc finish edging, 12mm supawood back and sides with 4mm thick masonite bottom complete with ironmongery as per architect's drawing <b>no.MCS-PHS-2AH1-602 sheet no.3</b>	No	2		
170	Corner floor cupboard on plan 600mm x 600mm x 900mm high with 16mm medium density fibreboard supawood or similar approved top, sides, bottom, divisions, shelf, back, single hinged door and ironmongery with 3mm thick pvc finish edges and veneer as per architect's drawing no.MCS-PHS-2AH1-602 sheet no.3	No	2		
171	Combination floor and sink cupboard 900mm x 600mm x 900mm high with 16mm medium density fibreboard supawood or similar approved top cut out for single sink, sides, bottom, divisions, shelf, back, skirting, double hinged doors and ironmongery with 3mm thick pvc finish edges and veneer as per architect's drawing <b>no.MCS-PHS-2AH1-602 sheet no.3</b>	No	2		
172	Wall mounted cupboard 1052mm x 300mm x 750mm high with two unequal doors sizes 432mm x 750mm high and 620mm x 750mm high ,1500mm high with 16mm thick medium fibreboard density supawood or similar approved top, sides, bottom, division, shelf, back, double hinged door with 3mm thick pvc finish edges and veneer and stainless steel hollow bar handles-silver (128mm x 167mm x 35mm) or equal approved as per architect's drawing <b>no. MCS-PHS-2AH1-602 sheet no.3</b>	No	3		
	Carried to collection Bill No. 7 CARPENTRY AND JOINERY BID NO.: DOE14NWER015A			R	

173	Wall mounted cupboard 1932mm x 300mm x 750mm high,1500mm high with 16mm thick medium fibreboard density supawood or similar approved top, sides, bottom, division, shelf, back, double hinged door with 3mm thick pvc finish edges and veneer and stainless steel hollow bar handles-silver (128mm x 167mm x 35mm) or equal approved as per architect's drawing <b>no. MCS-PHS-2AH1-602 sheet no.3</b>	No	2		
	Type 1A Hostel				
174	600 x 30mm Thick Rustenburg black granite or similar approved as per architects drawing as per architect's drawing <b>no.MCS-PHS-1AH1-602 sheet no.3</b>	m	29		
175	Combination floor and sink cupboard 600mm x 600mm x 900mm high with 16mm mdf supawood or similar approved top cut out for single sink, sides, bottom, divisions, shelf, back, skirting, single hinged doors and ironmongery with 3mm thick pvc finish edges and veneer as per architect drawing <b>no.MCS-PHS-1AH1-602 sheet no.3</b>	No	12		
176	Drawer unit size 700mm x 600mm x 900mm high with 16mm mdf supawood or similar approved fronts and 3mm thick pvc finish edging, 12mm supawood back and sides with 4mm thick masonite bottom complete with ironmongery as per architect drawing <b>no.MCS-PHS-1AH1-602 sheet no.3</b>				
		No	12		
177	Corner floor cupboard on plan 1900mm x 600mm x 900mm high with 16mm mdf supawood or similar approved top, sides, bottom, divisions, shelf, back, single hinged door and ironmongery with 3mm thick pvc finish edges and veneer as per architect drawing no.MCS-PHS-1AH1-602 sheet no.3	No	12		
	Carried to collection  Bill No. 7  CARPENTRY AND JOINERY  BID NO.: DOE14NWER015A			R	_

Wall mounted cupboard 1052mm x 300mm x 750mm high with two unequal doors sizes 432mm x 750mm high and 620mm x 750mm high ,1500mm high with 16mm thick medium fibreboard density supawood or similar approved top, sides, bottom, division, shelf, back, double hinged door with 3mm thick pvc finish edges and veneer and stainless steel hollow bar handles-silver (128mm x 167mm x 35mm) or equal approved as per architect's drawing <b>no. MCS-PHS-2AH1-602 sheet no.3</b>	No	16			
Wall mounted cupboard 1932mm x 300mm x 750mm high,1500mm high with 16mm thick medium fibreboard density supawood or similar approved top, sides, bottom, division, shelf, back, double hinged door with 3mm thick pvc finish edges and veneer and stainless steel hollow bar handles-silver (128mm x 167mm x 35mm) or equal approved as per architect's drawing <b>no. MCS-PHS-2AH1-602 sheet no.3</b>	No	16			
Staff House					
600 x 30mm Thick Rustenburg black granite or similar approved as per architects drawing as per architect's drawing <b>no.MCS-PH2-SH1-602 sheet no.1</b>	m	76			
Combination floor and sink cupboard 1500mm x 600mm x 900mm high with 16mm mdf supawood or similar approved top cut out for single sink, sides, bottom, divisions, shelf, back, skirting, single hinged doors and ironmongery with 3mm thick pvc finish edges and veneer as per architect drawing <b>no.MCS-PH2-SH1-602</b> sheet <b>no.1</b>	No	8			
Drawer unit size 600mm x 600mm x 900mm high with 16mm mdf supawood or similar approved fronts and 3mm thick pvc finish edging, 12mm supawood back and sides with 4mm thick masonite bottom complete with ironmongery as per architect drawing no.MCS-PH2-SH1-602 sheet no.1					
	No	24			
Carried to collection  Bill No. 7  CARPENTRY AND JOINERY  BID NO.: DOE14NWER015A			R		
	750mm high with two unequal doors sizes 432mm x 750mm high and 620mm x 750mm high ,1500mm high with 16mm thick medium fibreboard density supawood or similar approved top, sides, bottom, division, shelf, back, double hinged door with 3mm thick pvc finish edges and veneer and stainless steel hollow bar handles-silver (128mm x 167mm x 35mm) or equal approved as per architect's drawing no. MCS-PHS-2AH1-602 sheet no.3  Wall mounted cupboard 1932mm x 300mm x 750mm high,1500mm high with 16mm thick medium fibreboard density supawood or similar approved top, sides, bottom, division, shelf, back, double hinged door with 3mm thick pvc finish edges and veneer and stainless steel hollow bar handles-silver (128mm x 167mm x 35mm) or equal approved as per architect's drawing no. MCS-PHS-2AH1-602 sheet no.3  Staff House  600 x 30mm Thick Rustenburg black granite or similar approved as per architects drawing as per architect's drawing no. MCS-PH2-SH1-602 sheet no.1  Combination floor and sink cupboard 1500mm x 600mm x 900mm high with 16mm mdf supawood or similar approved top cut out for single sink, sides, bottom, divisions, shelf, back, skirting, single hinged doors and ironmongery with 3mm thick pvc finish edges and veneer as per architect drawing no.MCS-PH2-SH1-602 sheet no.1  Drawer unit size 600mm x 600mm x 900mm high with 16mm mdf supawood or similar approved fronts and 3mm thick pvc finish edging, 12mm supawood back and sides with 4mm thick masonite bottom complete with ironmongery as per architect drawing no.MCS-PH2-SH1-602 sheet no.1  Carried to collection  Bill No. 7  CARPENTRY AND JOINERY	750mm high with two unequal doors sizes 432mm x 750mm high and 620mm x 750mm high y 750mm high yith 16mm thick medium fibreboard density supawood or similar approved top, sides, bottom, division, shelf, back, double hinged door with 3mm thick pvc finish edges and veneer and stainless steel hollow bar handles-silver (128mm x 167mm x 35mm) or equal approved as per architect's drawing no. MCS-PHS-2AH1-602 sheet no.3  Wall mounted cupboard 1932mm x 300mm x 750mm high,1500mm high with 16mm thick medium fibreboard density supawood or similar approved top, sides, bottom, division, shelf, back, double hinged door with 3mm thick pvc finish edges and veneer and stainless steel hollow bar handles-silver (128mm x 167mm x 35mm) or equal approved as per architect's drawing no. MCS-PHS-2AH1-602 sheet no.3  Staff House  600 x 30mm Thick Rustenburg black granite or similar approved as per architects drawing as per architect's drawing no. MCS-PH2-SH1-602 sheet no.1  Combination floor and sink cupboard 1500mm x 600mm x 900mm high with 16mm mdf supawood or similar approved top cut out for single sink, sides, bottom, divisions, shelf, back, skirting, single hinged doors and ironmongery with 3mm thick pvc finish edges and veneer as per architect drawing no.MCS-PH2-SH1-602 sheet no.1  Drawer unit size 600mm x 600mm x 900mm high with 16mm mdf supawood or similar approved fronts and 3mm thick pvc finish edging, 12mm supawood back and sides with 4mm thick masonite bottom complete with ironmongery as per architect drawing no.MCS-PH2-SH1-602 sheet no.1  No  Carried to collection  Bill No. 7  CARPENTRY AND JOINERY	750mm high with two unequal doors sizes 432mm x 750mm high and 620mm x 750mm high, 1500mm high with 16mm thick medium fibreboard density supawood or similar approved top, sides, bottom, division, shelf, back, double hinged door with 3mm thick pvc finish edges and veneer and stainless steel hollow bar handles-silver (128mm x 167mm x 35mm) or equal approved as per architect's drawing no. MCS-PHS-2AH1-602 sheet no.3  Wall mounted cupboard 1932mm x 300mm x 750mm high, 1500mm high with 16mm thick medium fibreboard density supawood or similar approved top, sides, bottom, division, shelf, back, double hinged door with 3mm thick pvc finish edges and veneer and stainless steel hollow bar handles-silver (128mm x 167mm x 35mm) or equal approved as per architect's drawing no. MCS-PHS-2AH1-602 sheet no.3  No 16  Staff House  600 x 30mm Thick Rustenburg black granite or similar approved as per architects drawing as per architect's drawing no. MCS-PH2-SH1-602 sheet no.1  m 76  Combination floor and sink cupboard 1500mm x 600mm x 900mm high with 16mm mdf supawood or similar approved top cut out for single sink, sides, bottom, divisions, shelf, back, skirting, single hinged doors and ironmongery with 3mm thick pvc finish edges and veneer as per architect drawing no. MCS-PH2-SH1-602 sheet no.1  No Drawer unit size 600mm x 600mm x 900mm high with 16mm mdf supawood or similar approved fronts and 3mm thick pvc finish edging, 12mm supawood back and sides with 4mm thick masonite bottom complete with ironmongery as per architect drawing no. MCS-PH2-SH1-602 sheet no.1  No 24	750mm high with two unequal doors sizes 432mm x 750mm high and 620mm x 750mm high form thick medium fibreboard density supawood or similar approved top, sides, bottom, division, shelf, back, double hinged door with 3mm thick pvc finish edges and veneer and stainless steel hollow bar handles-silver (128mm x 167mm x 35mm) or equal approved as per architect's drawing no. MCS-PHS-2AH1-602 sheet no.3  No 16  Wall mounted cupboard 1932mm x 300mm x 750mm high,1500mm high with 16mm thick medium fibreboard density supawood or similar approved top, sides, bottom, division, shelf, back, double hinged door with 3mm thick pvc finish edges and veneer and stainless steel hollow bar handles-silver (128mm x 167mm x 35mm) or equal approved as per architect's drawing no. MCS-PHS-2AH1-602 sheet no.3  Staff House  600 x 30mm Thick Rustenburg black granite or similar approved as per architects drawing as per architect's drawing no. MCS-PH2-SH1-602 sheet no.1  Combination floor and sink cupboard 1500mm x 600mm x 900mm high with 16mm mdf supawood or similar approved for cut out for single sink, sides, bottom, divisions, shelf, back, skirting, single hinged doors and ironmongery with 3mm thick pvc finish edges and veneer as per architect drawing no. MCS-PH2-SH1-602 sheet no.1  No  Drawer unit size 600mm x 600mm x 900mm high with 16mm mdf supawood or similar approved fronts and 3mm thick pvc finish edging, 12mm supawood back and sides with 4mm thick masonite bottom complete with ironmongery as per architect drawing no. MCS-PH2-SH1-602 sheet no.1  No  Carried to collection  Bill No. 7  CARPENTRY AND JOINERY	### ### ### ### ### ### ### ### ### ##

183	Corner floor cupboard on plan 2032mm x 600mm x 900mm high with 16mm mdf supawood or similar approved top, sides, bottom, divisions, shelf, back, single hinged door and ironmongery with 3mm thick pvc finish edges and veneer as per architect drawing <b>no.MCS-PH2-SH1-602</b> sheet <b>no.1</b>	No	16		
184	Floor cupboard on plan 900mm x 600mm x 2250mm high with 16mm mdf supawood or similar approved top, sides, bottom, divisions, shelf, back, double hinged door and ironmongery with 3mm thick pvc finish edges and veneer as per architect drawing <b>no.MCS-PH2-SH1-602</b> sheet <b>no.1</b>	No	8		
185	Floor cupboard on plan 1500mm x 600mm x 900mm high with 16mm mdf supawood or similar approved top, sides, bottom, divisions, shelf, back, three single hinged door and ironmongery with 3mm thick pvc finish edges and veneer as per architect drawing <b>no.MCS-PH2-SH1-602</b> sheet <b>no.1</b>	No	8		
186	Wall mounted cupboard 1500mm x 300mm x 750mm high,1500mm high affl with 16mm thick mfd supawood or similar approved top, sides, bottom, division, shelf, back, hinged doors with 3mm thick pvc finish edges, veneer and stainless steel hollow bar handles-silver (128mm x 167mm x 35mm) or equal approved as per architects drawing <b>no. MCS-PH2-SH1-602 sheet no.1</b>	No	8		
187	Wall mounted cupboard 1300mm x 300mm x 750mm high,1500mm high affl with 16mm thick mfd supawood or similar approved top, sides, bottom, division, shelf, back, hinged doors with 3mm thick pvc finish edges, veneer and stainless steel hollow bar handles-silver (128mm x 167mm x 35mm) or equal approved as per architects drawing <b>no. MCS-PH2-SH1-602 sheet no.1</b>	No	8		
	Carried to collection			R	
	Bill No. 7 CARPENTRY AND JOINERY BID NO.: DOE14NWER015A				

188	Wall mounted cupboard 1032mm x 300mm x 750mm high,1500mm high affl with 16mm thick mfd supawood or similar approved top, sides, bottom, division, shelf, back, hinged doors with 3mm thick pvc finish edges, veneer and stainless steel hollow bar handles-silver (128mm x 167mm x 35mm) or equal approved as per architects drawing <b>no. MCS-PH2-SH1-602 sheet no.1</b>	No	8		
189	Wall mounted corner cupboard 1500mm x 300mm x 750mm high,1500mm high affl with 16mm thick mfd supawood or similar approved top, sides, bottom, division, shelf, back, hinged doors with 3mm thick pvc finish edges, veneer and stainless steel hollow bar handles-silver (128mm x 167mm x 35mm) or equal approved as per architect's drawing <b>no. MCS-PH2-SH1-602 sheet no.1</b>	No	8		
	Hostel Master				
190	Combination floor and sink cupboard 1500mm x 600mm x 900mm high with 16mm mdf supawood or similar approved top cut out for single sink, sides, bottom, divisions, shelf, back, skirting, single hinged doors and ironmongery with 3mm thick pvc finish edges and veneer as per architect's drawing <b>no.MCS-PHS-HM2-602 sheet no.1</b>	No	2		
191	Drawer unit size 468mm x 600mm x 900mm high with 16mm mdf supawood or similar approved fronts and 3mm thick pvc finish edging, 12mm supawood back and sides with 4mm thick masonite bottom complete with ironmongery as per architect's drawing <b>no.MCS-PHS-HM2-602</b> sheet <b>no.2</b>	No	2		
		МО	2		
192	600 x 30mm Thick Rustenburg black granite or similar approved as per architects drawing as per architect's drawing <b>no.MCS-PHS-HM2-602 sheet no.1</b>	m	9		
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193	Floor cupboard on plan 732mm x 600mm x 900mm high with 16mm mdf supawood or similar approved top, sides, bottom, divisions, shelf, back, double hinged door and ironmongery with 3mm thick pvc finish edges and veneer as per architect drawing <b>no.MCS-PH2-SH1-602 sheet no.1</b>	No	2		
194	Corner floor cupboard on plan 900mm x 600mm x 900mm high with 16mm mdf supawood or similar approved top, sides, bottom, divisions, shelf, back, single hinged door and ironmongery with 3mm thick pvc finish edges and veneer as per architect drawing <b>no.MCS-PH2-SH1-602 sheet no.1</b>	No	4		
195	Wall mounted corner cupboard 1400mm x 300mm x 750mm high,1500mm high AFFL with 16mm thick mfd supawood or similar approved top, sides, bottom, division, shelf, back, double hinged door with 3mm thick pvc finish edges, veneer and stainless steel hollow bar handles-silver (128mm x 167mm x 35mm) or equal approved as per architect's drawing <b>no. MCS-PHS-HM2-602 sheet no.1</b>	No	4		
	Bedroom				
	Trung 24 Hostol				
	Type 2A Hostel				
196	30mm Thick Rustenburg black granite or similar approved worktop 605mm wide,815mm high from floor with two 50mm aluminium leg support as per architect's drawing <b>no.MCS-PHS-2AH1-602</b> sheet <b>no.1</b>	m	84		
197	Drawer unit size 200 x 720mm high drawer unit finished with 16mm thick supawood, postformed vertical edges, both faces laminated, top, bottom of door edges in 2mm thick PVC edging with two aluminium leg supports as per architect's drawing no.MCS-PHS-2AH1-602 sheet no.1 and no.2	No	88		
	10.MC5-1115-2A111-002 sheet 10.1 and 10.2	110			
198	Light duty shelving system with adjustable clip-in shelves complete as per architect's drawing no.MCS-PHS-2AH1-602 sheet no.6	No	7		
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	Type 1A Hostel				
199	30mm Thick Rustenburg black granite or similar approved worktop 605mm wide,815mm high from floor with two 50mm aluminium leg support as per architect's drawing no.MCS-PHS-1AH1-602 sheet no.1 and no.2	m	66		
200	Drawer unit size 200 x 470mm high drawer unit with 16mm thick supawood with postformed vertical edges, both faces laminated, top, bottom of door edges in 2mm thick PVC edging with an aluminium leg support as per architect's drawing no.MCS-PHS-1AH1-602 sheet no.1 and no.2	No	68		
201	1300mm x 2100mm high standard mild steel cupboard door frame and double semi solid flush panel doors with 16mm thick mdf supawood top fixed to 40 x 20mm mdf supawood cleats,16mm thick mdf supawood partition and shelves fixed to 50 x 20mm mdf cleats all with approved veneer as per architect's drawing no.MCS-PHS-1AH1-602 sheet no.1 and no.2	No	56		
	Staff House				
202	2200mm x 600mm x 2100mm high built in cupboard including timber framework plugged to walls and one side of the cupboard has 7 No. 600mm x 450mm shelving 2No. hinged doors size 446mm wide x 2100mm high, 2No. size 436mm x 2100mm high and 1No. size 437mm x 2100mm high with 16mm thick mdf supawood doors, bottom, back, top and sides with 3mm thick pvc finish edges all with approved veneer as per architect's drawing <b>no.MCS-PH2-SH1-602 sheet no.2</b>				
	no.2	No	16		
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203	3510mm x 600mm x 2100mm high built in cupboard including timber framework plugged to walls and one side of the cupboard has 7 No. 600mm x 450mm shelving 4No. hinged doors size 582mm wide x 2100mm high, 2No. size 592mm x 2100mm high and 1No. size 437mm x 2100mm high with 16mm thick mdf supawood doors, bottom, back, top and sides with 3mm thick pvc finish edges all with approved veneer as per architect's drawing <b>no.MCS-PH2-SH1-602 sheet no.2</b>	No	8		
	Hostel Master				
204	1690mm x 600mm x 2100mm high built in cupboard including four 450mm x 1690mm shelving with 16mm thick mdf supawood doors, bottom, back, top and sides with 3mm thick pvc finish edges all with approved veneer as per architect's drawing <b>no.MCS-PHS-HM2-602 sheet no.2</b>	No	2		
205	1800mm x 600mm x 2100mm high built in cupboard including 450mm shelving with 16mm thick mdf supawood doors, bottom, back, top and sides with 3mm thick pvc finish edges all with approved veneer as per architect's drawing no.MCS-PHS-HM2-602 sheet no.2	No	2		
206	1900mm x 600mm x 2100mm high built in cupboard including 450mm shelving with 16mm thick mdf supawood doors, bottom, back, top and sides with 3mm thick pvc finish edges all with approved veneer as per architect's drawing no.MCS-PHS-HM2-602 sheet no.2	No	2		
	Type 2A Hostel				
	Washing Area				
207	30mm Thick Rustenburg black granite or similar approved worktop 605mm wide,815mm high from floor with two 50mm aluminium leg support as per architect's drawing <b>no.MCS-PHS-2AH1-602 sheet no.4</b>	m	8		
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	Type 1A Hostel				
	Cleaner's Store				
208	Light duty shelving system with adjustable clip-in shelves complete as per architect's drawing no.MCS-PHS-2AH1-602 sheet no.6	No	8		
	Guard House				
209	30mm Thick Rustenburg black granite or similar approved worktop 605mm wide, 815mm high from floor with two 50mm aluminium leg support as per architect's drawing <b>no.MCS-PHS-2AH1-602 sheet no.4</b>		0		
		m	8		
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	SECTION NO. 2			
	BILL NO. 8			
	FLOOR COVERING, PLASTIC LINING, ETC.			
	PREAMBLES			
	For preambles see "Model Preambles for Trades"			
	<b>NOTE</b> : Work Group No 130 for JBCC CPAP purposes			
	SUPPLEMENTARY PREAMBLES			
	<u>General</u>			
	Floors and skirtings shall be protected from damage during the progress of any remaining work and shall be cleaned and handed over in a perfect condition upon completion.			
	<u>Descriptions</u>			
	Descriptions of floor coverings and wall linings shall be deemed to include dressing around and into corners.			
	Floor coverings, etc. shall be fixed to perfectly dry and clean screeded surfaces with an emulsion type adhesive such as bitumen, rubber bitumen or latex-resin, all as described in SANS Code of Practice 070.			
	Items, materials or methods to be used specified by trade names or catalogue numbers are only an indication of the quality required. Items, materials or methods of similar quality may be used with prior approval from the Principal Agent.			
	Carried to collection  Bill No. 8 FLOOR COVERING, ETC. BID NO.: DOE14NWER015A		R	

	FLOOR COVERINGS			
	300 x 300 x 2,5mm Semi-flexible vinyl floor tiles in selected colours			
210	Vinyl tiles	m²	2,995	
211	Inserts 300mm wide of differing colour to create patterns	m	181	
	$\frac{\text{CORNER PROTECTORS, DIVIDING STRIPS,}}{\text{ETC.}}$			
	Dividing strips			
212	M-Trim Aluminium strip (Code ASE 030)	m	98.7	
213	Polyflor Clip Top capping (Code: CTC 30), glue to wall with an approved adhesive and finish with (Code: CB 30) Cliptop capping all in accordance			
	with manufacturer's specifications.	m	118	
214	40mm High Aluminium transition strip	m	107	
	SKIRTING, NOSING, ETC.			
	Skirtings			
215	70mm x 16mm thick aluminium skirtings	m	58	
	POLISH, SEALERS, ETC.			
	Scrub with a neutral detergent and seal with three coats water based floor dressing			
216	On vinyl flooring	m²	2,995	
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Item No		Quantity	Rate	Amount R	
	SECTION NO. 2				
	BILL NO. 9				
	CEILINGS, PARTITIONS AND ACCESS FLOORING				
	PREAMBLES				
	For preambles see "Model Preambles for Trades"				
	<u>NOTE</u> : Work Group No 129 for JBCC CPAP purposes				
	SUPPLEMENTARY PREAMBLES				
	<u>Descriptions</u>				
	Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins or shot pinned to brickwork or concrete				
	Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres, and where described as "bolted", the bolts are measured elsewhere				
	Proprietary suspended ceilings				
	Electric light fittings, diffusers, panels, etc generally are "lay in" units of the same dimensions as the suspension grid described and allowance shall be made accordingly for their support, inclusive of any flexibility in setting out that may be required (ceiling panels have not been deducted and pricing shall take cognisance thereof)				
	CEILINGS, ETC.				
	Carried to collection  Bill No. 9 CEILINGS, ETC.		R		<u> </u>
	BID NO.: DOE14NWER015A				

	Polyster thermal insulation				
217	135mm Thick in blanket form insulation laid over ceiling and brandering closely fitted between rafters.	m²	1,068		
			1,000		
218	75mm thick Insulation closely fitted and laid on top of brandering between roof timbers, etc. in accordance with manufacturer's specifications.	m²	1,990		
219	50mm thick Insulation closely fitted and laid on top of brandering between roof timbers, etc. in accordance with manufacturer's specifications.	m²	1,408		
	NAILED UP CEILINGS				
	9,4mm thick Rhinoboard gypsum ceiling boards (SANS Specification 266 - 1982 or later revision) with 7mm H-type pressed steel jointing strips including 38 x 100mm sawn ceiling joists, nailed to (with 2mm diameter galvanised or cadmium plated clout head nails 40mm long) and including 38 x 38mm sawn softwood brandering, in compliance with SANS 653, at 1200mm centres in both directions including any additional brandering at walls and ends				
220	Ceilings including 38 x 38mm sawn softwood brandering at 400mm centres in one direction	m²	3,800		
	6,4mm thick Fibre cement ceiling boards with mesh wire nailed on ex 38mm x 50mm timber brandering				
221	Ceilings including 38 x 38mm sawn softwood brandering at 300mm centres in one direction with H-profile jointing strips				
		m²	1,436		
	Carried to collection Bill No. 9 CEILINGS, ETC. BID NO.: DOE14NWER015A			R	

	Trap doors, Access panels, etc.				
222	Extra over ceilings for lockable access panel size 600 x 600mm, including padlock, hasp and staple	No	50		
	CORNICES				
	"Rhino" gypsum plasterboard cornices				
223	75mm Gypsum coved cornices, nailed to wall and ceiling.	m	3,711		
	Wrought Meranti				
224	Standard 75mm coved cornice, nailed to wall and ceiling.	m	1,637		
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	Bill No. 9 CEILINGS, ETC. BID NO.: DOE14NWER015A				
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	SECTION NO. 2				
	BILL NO. 10				
	IRONMONGERY				
	PREAMBLES				
	For preambles see "Model Preambles for Trades"				
	<b>NOTE</b> : Work Group No 132 for JBCC CPAP purposes				
	SUPPLEMENTARY PREAMBLES				
	Finishes to ironmongery				
	Where applicable finishes to ironmongery are indicated by suffixes in accordance with the following list: BS Satin bronze lacquered CH Chromium plated SC Satin chromium plated SE Silver enamelled GE Grey enamelled AS Anodised silver AB Anodised bronze AG Anodised gold ABL Anodised black PB Polished brass PL Polished and lacquered PT Epoxy coated SD Sanded				
	HINGES, BOLTS, ETC				
225	Bathroom deadbolt N	0	99		
226	Brass barrel bolt 150 x 32 x 3.7mm	0	100		
227	L/Flush Bolt 150mm	0	7		
228	L/Flush Bolt 225mm	0	7		
	LOCKS				
	Carried to collection  Bill No. 10 IRONMONGERY BID NO.: DOE14NWER015A			R	

	Approved				
229	Door lock SS	No	282		
230	WC 8mm Deadlock SS	No	34		
	<b>Escutcheons</b>				
231	SS5004-73SS Escutcheon on rose bathroom	No	99		
	Cylinders				
232	Cylinder profile MKD or similar approved	No	256		
233	W/C PRIVACY CYL	No	30		
234	52 CYL CB lock 25NP KD	No	51		
	Door closers				
235	Closer EN3-6 SIL	No	40		
	<u>Door stops</u>				
236	Satin door stop SS or similar approved	No	344		
	<u>Furniture</u>				
237	Gower Furniture Profile	Pairs	282.0		
	Pull handles				
238	22mm Diameter tubular stainless steel pull handle bolted to 304mm high x 152mm wide back plate latter to have no sharp corner or edges.	No	40		
239	Stainless Steel 150mm Bolt Through pull handle 22mm Diameter	No	24		
240	Stainless Steel 300mm pull handle flange fixed 22mm diameter.	No	30		
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241	Cupboard pull Handle	No	102		
242	2700 Rebate set SS	No	10		
	CATCHES AND LATCHES				
243	ARC1182SS Adjustable roller catches	No	20		
244	Hat & Coat hook rubber tipped or similar approved	No	99		
	LETTERS, NAMEPLATES, ETC.				
	3mm Thick rectangular stainless steel name plate with black letters (letters to be 33,5mm Sans Serif Helvetica medium and to be 7mm from edges of sign) on back, with light grey background, with edges of stainless steel polished fixed to doors with suitable nails				
245	Female indicator sign	No	2		
246	Male Indicator sign	No	2		
247	Cleaner Mop and Bucket Sign	No	18		
248	Shower Sign	No	18		
249	Paraplegic toilet sign	No	20		
	"Clear Acrylic Signage" or other approved by Architect.				
250	Clear acrylic sheet signage size 600 x 150mm including pictures and writing in white.	No	44		
251	Clear acrylic sheet security office signage size 600 x 150mm including pictures and writing in white.	No	2		
	PUSH PLATES AND KICKING PLATES				
	Carried to collection  Bill No. 10 IRONMONGERY BID NO.: DOE14NWER015A			R	

	1,2mm Satin finish stainless steel plates counter sunk screwed along edges at not exceeding 200mm centres			
252	Push Plate 152mm x 304mm works	No	40	
253	Kickplate 200x800mm works. (Doors to be measured on site prior of plates)	No	78	
	SUNDRIES:			
254	Emergency Covered Turn Comp	No	19	
55	Dust Proof Strike	No	7	
56	Double 32mm stainless steel curtain rod, wall mounted, with metal ball ends for 32mm stainless steel curtain rod	No	223	
57	Single 32mm stainless steel curtain rod, wall mounted, with metal ball ends for 32mm stainless steel curtain rod	No	236	
	PINNING BOARDS, WRITING BOARDS, PROJECTION SCREENS, ETC			
58	Overall size 1200 x 1200mm carpet pinning boards as complete with aluminium frame, pen tray, fixing components and rounded plastic corners and installed strictly to manufacturers detail and specifications	No	10	
59	Overall size 1800 x 1200mm carpet pinning boards complete with aluminium frame, pen tray, fixing components and rounded plastic corners and installed strictly to manufacturers detail specifications.	No	6	
60	White board size 2400 x 1200mm (Delux Aluminium frame A pen rail) or equally approved to comply with SANS 2400, wall mounted and installed strictly to manufacturers detail specifications. Board to be installed 900mm from floor finish.	No	4	
	Carried to collection  Bill No. 10 IRONMONGERY BID NO.: DOE14NWER015A			R

	BATHROOM FITTINGS:			
261	Stainless steel soap dispenser with a stainless pull lever including screws and dowels	No	105	
262	Soap holder code PHCC3 in 18/10stainless steel finish plugged and screwed to wall,	No	14	
263	Soap dispensers touch free soap dispenser for wall mounting, stainless steel with satin finish, white safety glass front panel, casing with InoxPlus surface refinement for the reduction of finger marks and better cleaning characteristics (easy to clean), material thickness 1.2 mm, inspection window on side, infrared sensor activity for non-touch operation, LED display shows battery status, requires 4 pieces 1.5V AA batteries, suitable for liquid soap and lotions, includes 800 ml refill tank, dispenses 0.6 - 1.1 ml depending on soap, includes mounting materials	No	25	
264	110mm x 114mm Single arm soap rack manufactured from polished stainless steel	No	26	
265	Professional SQ3 toilet tissue dispenser colour white, overall size 130 x 135 x 360mm high.	No	24	
266	Stainless steel double toilet roll holder	No	102	
267	300mm x 326mm x 120mm Paper towel dispenser for wall mounting, stainless steel with satin finish, white safety glass front panel with InoxPlus surface refinement for the reduction of finger marks and better cleaning characteristics (easy to clean), material thickness 1.2 mm, inspection window on side, capacity 300 - 400 pieces of Z-folded paper, includes mounting material.	No	29	
268	19mm Diameter chromium plated towel rail 900mm long including end brackets plugged	No	48	
269	25mm Diameter chromium plated shower curtain rail 1100mm long including end brackets plugged	No	70	
	Carried to collection  Bill No. 10 IRONMONGERY BID NO.: DOE14NWER015A			R

270	32mm Diameter flanged dog leg grab rail with 3 supports with brushed grade 304 stainless steel finish, overall size 604 x 604 x 106mm deep, plugged and screwed to wall with stainless steel screws	No	18		
271	32mm Diameter satin polished stainless steel flushvalve back rail, complete with stainless steel fixing screws and plastic wall plugs	No	18		
272	32mm Diameter flanged cistern rail, approximately 1150mm girth	No	18		
273	32mm Diameter stainless steel 18/10 straight grab rail, approximately 500mm girth	No	18		
274	32mm Diameter stainless steel 18/10 straight grab rail angle bar 135 degree, approximately 900mm girth	No	10		
275	Bathroom Butler Paraplegic cistern grab rail with brushed grade 304 stainless steel finish, overall size 842 x 92 x 227mm deep, plugged and screwed to wall with stainless steel screws or equally approved.	No	26		
276	Medical slatted bath seat that fixes securely to the bath with 4 suction pads,	No	18		
277	Stainless Products 32mm Ø grade 304 stainless steel universal bath rail, plugged and screwed to walls with stainless steel screws	No	96		
278	1500 x 1200mm Teflon coated shower curtains colour white, Curtains & Linen with galvanised shower curtain rings and 50mm diameter stainless steel tube curtain rail fixed to walls across shower entry at 2000mm height.	No	68		
279	1500 x 2000mm Teflon coated shower curtains colour white, Curtains & Linen with galvanised shower curtain rings and 50mm diameter stainless steel tube curtain rail fixed to walls across shower entry at 2000mm height.	No	2		
	Carried to collection  Bill No. 10 IRONMONGERY BID NO.: DOE14NWER015A			R	
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280	50mm diameter stainless steel tube curtain holder including sundries fixed to walls	m	86		
	SUNDRIES				
281	Stainless steel hand towel dispenser	No	27		
282	Stainless steel waste bin wall mounted, 30litres.	No	29		
283	175 x 285 x 620mm SHE/Hygiene bin for easy disposal slim line design to easily fit inside cubicle free standing or wall mounted all in accordance with the manufacturer's specifications  STEEL SHELVING AND LOCKERS	No	73		
	Light Duty shelves				
284	Light duty steel shelving system with adjustable clip-in-shelves size 1925mm height x 610mm deep x 2200mm wide, with braces at the back (size 2000 x 610mm).	No	45		
285	Light duty slotted angle steel shelving size 1600mm wide x 600mm deep x 2000mm high, with six shelf levels per unit. Units to be assembled together with corner gussets and complete with standard bracing, end-frame angle uprights and all necessary accessories all in accordance with the manufacturer's instructions	No	1		
286	Light duty slotted angle steel shelving size 1800mm wide x 600mm deep x 2000mm high, with six shelf levels per unit. Units to be assembled together with corner gussets and complete with standard bracing, end-frame angle uprights and all necessary accessories all in accordance with the manufacturer's instructions	No	20		
	Carried to collection Bill No. 10 IRONMONGERY BID NO.: DOE14NWER015A			R	_

287	Light duty slotted angle steel shelving size 2000mm wide x 600mm deep x 2000mm high, with six shelf levels per unit. Units to be assembled together with corner gussets and complete with standard bracing, end-frame angle uprights and all necessary accessories all in accordance with the manufacturer's instructions	No	3		
288	Light duty slotted angle steel shelving size 2800mm wide x 600mm deep x 2000mm high, with six shelf levels per unit. Units to be assembled together with corner gussets and complete with standard bracing, end-frame angle uprights and all necessary accessories all in accordance with the manufacturer's instructions	No	1		
	STEEL LOCKERS				
	Steel lockers with standard baked enamel finish				
289	Single door heavy-duty steel lockers,1800mm high x 450mm wide x 500mm deep, with all necessary accessories in accordance with the manufacturer's specifications; with one shelf at the top, a hanging rail underneath and hasp staple for padlock facility, the lock to be fixed to the wall	No	88		
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	SECTION NO. 2			
	BILL NO. 11			
	STRUCTURAL STEELWORK (PROVISIONAL)			
	PREAMBLES			
	For preambles see "Model Preambles for Trades"			
	<b>NOTE</b> : Work Group No 134 for JBCC CPAP purposes			
	SUPPLEMENTARY PREAMBLES			
	Shop drawings			
	The contractor will be required to prepare shop details for the work which must be submitted to the Engineer for approval before fabrication is started. Approval of shop details by the Engineer will include the following:			
	a) Examination of member sizes for consistency with design requirements.			
	b) Examination of all connections designed and/or detailed by the fabricator, for adequacy of load trasference.			
	c) Approval of leading dimensions which are taken to			
	include such dimensions as may influence the design			
	(e.g., depth of trusses and girders) or which may grossly affect site programme (e.g., truss spans and stanchion heights).			
	Carried to collection  Bill No. 11 STRUCTURAL STEELWORK BID NO.: DOE14NWER015A		R	

Notwithstanding any approval of these details, the contractor shall remain responsible for ensuring that the dimensions, details and workmanship result in the correct assembly of the work.		
Material and workmanship		
The steelwork is to be fabricated from mild steel to SABS 1431 Grade 350W. The whole of the fabrication and workmanship generally is to be in strict accordance with SABS 0162-1984 as amended. The material shall be of best quality throughout, free from loose rust or millscale, true to thickness and profile throughout and of the section and mass specified subject to a 2% tolerance for rolling margin. Consideration will be given to any detail variation which the contractor may wish to make with the view to the simplification of either fabrication, delivery or erection. Substitutions must be made at the contractor's own expense.		
The contractor shall provide Works Test Certificates where so required by the Architect.		
Testing		
The Engineer shall be at liberty to select test pieces from steelwork in the workshop or on the site and to have them tested. The expense of such tests are to be borne by the contractor if the steelwork does not comply with the standards laid down above. A provisional sum is allowed in the bill of quantities for non-destructive testing.		
Hold down bolts		
Holding down bolts and other fixing devices which are to be embedded in concrete must be supplied to the principal contractor on request together with the necessary information, identification and templates.		
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2 mm Mild steel plate templates provided on a scale of one template for every five groups of bolts, suitably marked to ensure easy identification are to be supplied to the principal contractor.		
Any costs incurred by subsequent repositioning of bolts, etc resulting from the contractor having failed to furnish adequate information, identification and templates will be for the contractor's account.		
Welding		
Welding shall be in accordance with SABS 044 "Welding: Parts I, II and III".		
Welding shall be carried out in a manner which will prevent any distortion of the weld or the parent section.		
All welds shall have adequate root fusion and shall be free from cracks, porosity or other irregularities and any undercutting shall be made good by the deposition of additional runs of weld metal.		
Any completed welds showing cracks, cavities or other efects shall be cut out and made good at the contractor's own expense.		
Mild steel electrodes shall comply with SABS 455 "Covered Electrodes for Manual Arc Welding of Mild Steel and Medium High Tensile Steel".		
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Bolts		
Bolts shall have well-formed heads forged from the solid. Nuts shall closely fit the bolts so that they can only just be turned by hand and at least one clear thread shall project beyond the nut when fully tightened. All bolts shall have one asher under the nuts and shall be so tightened that the threaded portion does not bear on the members connected.		
Where bolt heads or nuts bear upon bevelled surfaces they shall be provided with tapered washers of 2,3 mm mean thickness to provide a seating square with the axis of the bolt.		
Friction grip bolts		
Connections specifying high strength friction grip bolts are to be in strict accordance with SABS 094 "Bolted Friction Grip Joints in Structural Steelwork" and the bolts used are to be in accordance with BS 3139 Part 1: 1959 "General Grade Bolts, High Strength Friction Grip Bolts for Structural Engineering".		
Notwithstanding the above, the following must be rigidly adhered to:		
a) Two-case hardened washers, one flat or bevelled under the head and the other flat or bevelled under the nut shall be used with each bolt.		
b) Contact surfaces shall not be painted and shall be thoroughly cleaned free of dirt, oil, loose scale, burrs and other defects which are liable to reduce friction resistnace between surfaces.		
c) At all times the correct torques shall be applied to the different sizes of bolts.		
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<b>Erection</b>		
The steelwork generally is to be fabricated in the contractor's works having due regard to transport and erection facilities. He must supply all erection tackle, temporary erection bracing, erect and plumb all steelwork and supply all steel wedges and tacks as required.		
Items may be detailed for delivery "piece small" or the contractor may prefabricate if he is satisfied that suitable arrangements for transport can be made.		
Connections are to be designed for the forces indicated on the drawings or to the maximum capacity of the members.		
Cleaning and painting		
All structural steel is to be thoroughly degreased to remove all grease or oil and then wire-brushed, scraped or sand-papered to remove all rust, mill-scale or surface contaminations and is to be immediately given one coat zinc chromate, allowed to dry overnight and given one coat of universal undercoat prior to delivery to site. All damaged paintwork is to be made good on site after erection is complete.		
<u>Testing of welders</u>		
Tenderers must include in their rates for the testing of any welder used on the work who has not been tested within a period of six months immediately preceding his employment on this contract.		
Further notes		
Also refer to the structural steelwork notes indicated on the Engineer's relevant structural drawings.		
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	Painting/corrosion protection specification				
	a) All steelwork shall be mechanically wire-brushed to ST3O blast clean to SA2.				
	b) All steelwork shall receive one coat primer to DFT-100 micron.				
	STEEL COLUMNS AND BEAMS				
	Welded columns in single lengths with flat section base, top, bearer and connection plates, bolted to concrete				
290	100 x 100 x 10mm T-Section Angle Iron Steel beam	t	0.52		
	Bolts, Nuts, Washers, etc.				
291	230 x 230 x 6mm Thick base plate	No	36		
292	M16 Chemset Bolts 150mm deep grout with R-kem Grout	No	144.00		
	<u>TESTS</u>				
	Weld testing				
293	Welding tests	No	4		
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Section No. 2				
Bill No. 11				
STRUCTURAL STEELWORK				
COLLECTION PAGE				
	Page No		Amount R	
Total Brought Forward from Page No.	118			
Total Brought Forward from Page No.	119			
Total Brought Forward from Page No.	120			
Total Brought Forward from Page No.	121			
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Total Brought Forward from Page No.	123			
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Item No		Quantity	Rate	Amount R	
	SECTION NO. 2				
	BILL NO. 12				
	<u>METALWORK</u>				
	PREAMBLES				
	For preambles see "Model Preambles for Trades"				
	<b>NOTE</b> : Work Group No 136 for JBCC CPAP purposes				
	SUPPLEMENTARY PREAMBLES				
	DESCRIPTIONS				
	Descriptions of bolts shall be deemed to include nuts and washers				
	Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete				
	Metalwork described as "holed for bolt(s)" shall be deemed to exclude the bolts unless otherwise described				
	PREAMBLES				
	For preambles refer to "General Specification of Materials and Methods to be used for Building Contracts" (GP/ASC)				
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TRADE NAMES		
No reference to trade names shall be made in these bills of quantities		
General:		
All glazed aluminium windows, sliding doors, doors, shopfronts, skylights, etc. shall be designed, manufactured, supplied and installed in strict compliance with the "Association of Architectural Aluminium Manufacturers of South Africa (AAAMSA), General Specification for Architectural Aluminium and Glass Products February 2005 Edition" and SANS 10137.		
All descriptions shall be deemed to include transoms, mullions, etc. as per the Architect's drawings.		
Design and installation:		
The Sub-Contractor shall be required to design the entire installation, provide all labour, materials, equipment and services required to complete the installation as specified herein.		
The Sub-Contractor shall ensure that the necessary wind pressure provisions have been incorporated within the design criteria. The Sub-Contractor shall submit his wind design criteria to the Architect for inspection.		
The Sub-Contractor shall allow for expansion of glass, framing, surrounding structures, etc.		
The Sub-Contractor shall allow for and produce fully detailed workshop drawings (3 copies) including samples of all ironmongery within 14 working days of the Main Contractors request.		
Fire resistance:		
The installation shall conform to the local authorities fire resistance standards.		
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Templates:		
Templates formed of 25 x 25mm square hollow section steel are to be provided in each opening to ensure that all windows, doors, shopfronts, skylights, etc. are built in plumb and square.		
The subcontractor is to use his discretion in providing a sufficient quantity of templates as required to complete the Works as per the Main Contractor's programme.		
Grounds:		
19 x 25mm Wrought SA pine grounds are to be fitted all round windows, doors, etc. Where grounds are visible they should be painted to form a shadowline.		
Sealing:		
Window frames are to be sealed all round internally and externally against the building structure with approved silicone jointing compound to prevent water ingress.		
Weather seals:		
All windows, doors, shopfronts, skylights, etc. are to be fitted with approved woolpile weather seals.		
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Ironmongery to doors:		
Door leaves are to be hung on one and a half pairs of 100 x 75mm butt hinges and fitted with one spring clip door holder. In addition double doors are to be fitted with one 150mm and one 200mm natural anodised flush lever bolt.		
Tenderers shall submit full specifications of ironmongery quoted which shall include all furniture, locks, handles, butt hinges, floor spring hinges, etc.		
The Sub-Contractor shall be required to submit ironmongery samples for approval prior to installation.		
Sub-Contractors are to note that the approval of shop drawings does not automatically indicate acceptance of ironmongery proposals.		
Prices:		
All glazed aluminium windows, sliding doors, doors, shopfronts, skylights, etc. must include for all jointing, notching, cutting, etc. and for setting up and fixing in postion complete with glass, glazing beads, external cills, ironmongery, fixing brackets, lugs, bolts, timber grounds, silicone sealant, templates, etc. all as detailed and scheduled on the drawings and as necessary for the satisfactory execution of the work.		
Factory quality control:		
The Sub-Contractor shall afford the Main Contractor full acces to plant, shop and assembly point to view and inspect the process and method employed in the fabricating and assembly of glazed aluminium windows, sliding doors, doors, shopfronts, skylights, etc.		
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	Protection and cleaning:					
	All aluminium must be protected against damage by covering with temporary casings (masking tape, plastic coatings, etc.) and against deterioration or discolouration caused by mortar, wax, paint, etc., all to the entire satisfaction of the Principal Agent. On completion all such protection shall be removed and work cleaned down and left in proper working order.					
	All glazing is to be protected from damage, breakage, scratches, etc. and allowances shall be made for polishing the glass as and when instructed by the Main Contractor.					
	STEEL SCREENS, GATES, ETC.					
	Steel security gates consisting of 10 x 10mm mild steel bars placed at 100mm centres at 45 degrees angles, screens etc. installed complete including subframes, welded, etc.					
294	Single security steel gate 490 x 2125mm high, of 60 x 40 x 2mm hollow section frame, two 40 x 6mm flat section intermediate rails, six 16mm diameter vertical intermediate bars framed through rails, four 25 x 25 x 3mm angle section stiffeners each 250 mm long welded to door frame, three 80mm long bullet hinges and two 50 x 40 x 8mm locking plates each with hole for and with padlock	No	16			
295	Single security steel gate $2000 \times 2125 \text{mm}$ high, of $60 \times 40 \times 2 \text{mm}$ hollow section frame, two $40 \times 6 \text{mm}$ flat section intermediate rails, six 16mm diameter vertical intermediate bars framed through rails, four $25 \times 25 \times 3 \text{mm}$ angle section stiffeners each $250 \text{ mm}$ long welded to door frame, three $80 \text{mm}$ long bullet hinges and two $50 \times 40 \times 8 \text{mm}$ locking plates each with hole for and with padlock	No	4			
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296	Single security steel gate 600 x 2125mm high, of 60 x 40 x 2mm hollow section frame, two 40 x 6mm flat section intermediate rails, six 16mm diameter vertical intermediate bars framed through rails, four 25 x 25 x 3mm angle section stiffeners each 250 mm long welded to door frame, three 80mm long bullet hinges and two 50 x 40 x 8mm locking plates each with hole for and with padlock	No	16		
297	Single steel security gate 900 x 2125mm high, of 60 x 40 x 2mm hollow section frame, two 40 x 6mm flat section intermediate rails, six 16mm diameter vertical intermediate bars framed through rails, four 25 x 25 x 3mm angle section stiffeners each 250 mm long welded to door frame, three 80mm long bullet hinges and two 50 x 40 x 8mm locking plates each with hole for and with padlock	No	27		
298	Double security steel gate $1600 \times 2125 \text{mm}$ high, of $60 \times 40 \times 2 \text{mm}$ hollow section frame, two $40 \times 6 \text{mm}$ flat section intermediate rails, six $16 \text{mm}$ diameter vertical intermediate bars framed through rails, four $25 \times 25 \times 3 \text{mm}$ angle section stiffeners each $250 \text{ mm}$ long welded to door frame, three $80 \text{mm}$ long bullet hinges and two $50 \times 40 \times 8 \text{mm}$ locking plates each with hole for and with padlock	No	1		
	Matt Bronze burglar proofing as per manufacturer's specifications				
299	manufacturer's specifications	No	4		
299 300	manufacturer's specifications  Guard House	No No	4		
	manufacturer's specifications  Guard House  Window size 600 x 600mm high (WGH03)		·		
300	Manufacturer's specifications  Guard House  Window size 600 x 600mm high (WGH03)  Window size 1500 x 1200mm high (WGH02)  Window size 2400 x 1200mm high aluminium	No	4	R	

	Type 2A Hostel			
302	Window size 600 x 900mm high (W2AH03)	No	28	
303	Window size 900 x 900mm high (W2AH02)	No	8	
304	Window size 900 x 900mm high (W2AH05)	No	4	
305	Window size 1200 x 900mm high (W2AH04)	No	45	
	Type 1A Hostel			
306	Window size 600 x 900mm high (W1AH03)	No	144	
307	Window size 900 x 900mm high (W1AH02)	No	44	
308	Window size 900 x 900mm high (W1AH05)	No	16	
309	Window size 900 x 1200mm high (W1AH04)	No	48	
310	Window size 900 x 1500mm high (W1AH01)	No	16	
	TV Room			
311	Window size 600 x 900mm high (WTV02)	No	8	
312	Window size 900 x 1500mm high (WTV01)	No	38	
	Hostel Master			
313	Window size 600 x 600mm high (WHM03)	No	4	
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314	Window size 1200 x 900mm high (WHM04)	No	2		
315	Window size 1500 x 1500mm high (WHM01)	No			
316	Window size 1500 x 1200mm high (WHM02)		2		
317	Window size 1500 x 600mm high window opening (WHM05)	No No	6		
	Hostel Administration	NO	2		
318	Window size 600 x 900mm high (W03)	No	3		
319	Window size 900 x 900mm high (W02)	No	11		
320	Window size 900 x 900mm high, purpose made aluminium sliding type (W05)	No	1		
321	Window size 900 x 1500mm high (W01)	No	8		
322	Window size 1200 x 900mm high (W04)	No	2		
	Staff House				
323	Window size 600 x 900mm high (WSH03)	No	16		
324	Window size 900 x 900mm high (WSH02)	No	8		
325	Window size 1500 x 1500mm high (WSH05)	No	16		
326	Window size 1600 x 900mm high (WSH01)	No	8		
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327	Window size 1800 x 1500mm high (WSH04)	No	24		
	PRESSED STEEL DOOR FRAMES				
	1,2 mm Double rebated pressed steel door frames suitable for half brick walls:				
328	Frame for door size 813 x 2 032mm high	No	28		
	1,2mm Double rebated pressed steel door frames suitable for one brick walls:				
329	Frame for double door 1600 x 2032mm high.	No	82		
	1,6mm Double rebated pressed steel door frames suitable for half brick walls:				
330	Frame for door size 813 x 2 032mm high	No	14		
	1,6mm Double rebated pressed steel door frames suitable for one brick walls:				
331	Frame for single door 813 x 2032mm high.	No	345		
332	Frame for single door 900 x 2100 mm high.	No	20		
333	Frame for double door 1200 x 2032mm high.	No	11		
334	Frame for double door 1700 x 2032mm high.	No	1		
335	Purpose made medium universal doors, sidelights, fanlights, etc with 12 x 12mm glazing beads  Glazed double door 1615 x 2186mm high with rebated frame suitable for one brick wall (Glazing elsewhere)	No	2		
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ALUMINIUM WINDOWS, DOORS, ETC.		
Glazing, unless otherwise specified in an individual description, shall be undertaken as follows: 8,76mm Laminated safety glass @ 900mm AFFL 8,38mm Normal strength laminated safety glass @ 900 - 2040mm height 6,38mm Obscure glass above 2040mm height		
Aluminium and glazing shall comply with the following specifications:		
Minimum performance requirements as published by AAMSA;		
Aluminium alloy extrusion Aluminium alloy sheets SANS 903. Anodising SANS 999. Neoprene performed seals and gaskets C542 Powder coat finishing SANS 1274 and 1578 (with a test certificate available on request).  National Building Regulations Part "N", SANS		
0137, SANS 0400, SANS 1263 and AAMSA Selection guide for Safety Glazing Materials: monolithic obscure and float glass thicknesses and glazing, shall comply strictly to these specifications.		
DOORS, WINDOWS, ETC. to be manufactured by an approved firm of specialists, to be of the best quality and design truly square and unless otherwise described, prepared to receive glazing beads from the outside. All opening portions must fit perfectly on all faces and be so hung as to open and close freely without binding at any point. Wherever possible, all angles and intersections to be welded by electric welding, argon or arc welding. A sample window is to be submitted to the Employer for approval before the work is put in place.		
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	COMBINED SCHOOL IN BOJANALA DISTRICT
The frames generally are to be for brickwork, blockwork or concrete reveals. They are to be fitted with fixing lugs of 2,8mm aluminium 13mm wide x 100mm long welded to framing, one near each corner and intermediately not more than 300mm apart to sides, top and bottom. Where concrete reveals, etc., the frames are to be countersunk holed for and fitted with the necessary screws at the centres, as for the lugs above.	
Immediately after the windows, doors, etc., have been delivered on to site, they are to be thoroughly overhauled and all necessary adjustment or repairs made before they are fixed in position. Where they come into contact with brickworks, blockwork, concrete, steel, etc., the framing is to be treated with bituminous paint in an approved manner. The windows, doors, etc., are to be placed in their positions for building in and adjusted to open and close properly and are to be securely structured to prevent distortion whilst the brickwork and lintels, are being built.	
On completion of all other work, the windows, doors, etc., are to be adjusted as necessary and rendered in a complete and satisfactory state of repair and in working order.	
GLAZING	
GENERAL: All rates for doors, windows,	
shopfronts, etc., should include for all glazing as specified.	
shopfronts, etc., should include for all glazing	
shopfronts, etc., should include for all glazing as specified.  GLASS AND GLAZING: All functional glass must be delivered to site, cut to size and ready for installation and must be classified to indicate grade and thickness. Labels must remain on each piece of glass until it is glazed, inspected and officially accepted in writing by the employer, thereafter, an insurance letter will follow absolving	
shopfronts, etc., should include for all glazing as specified.  GLASS AND GLAZING: All functional glass must be delivered to site, cut to size and ready for installation and must be classified to indicate grade and thickness. Labels must remain on each piece of glass until it is glazed, inspected and officially accepted in writing by the employer, thereafter, an insurance letter will follow absolving the contractor of responsibility.  FACTORY GLAZING: All glazing carried out in manufacturer's factory must be in accordance with window fabricated types. Manufacturing of frames must provide for glass, vinyl extrusions, cut-off	
shopfronts, etc., should include for all glazing as specified.  GLASS AND GLAZING: All functional glass must be delivered to site, cut to size and ready for installation and must be classified to indicate grade and thickness. Labels must remain on each piece of glass until it is glazed, inspected and officially accepted in writing by the employer, thereafter, an insurance letter will follow absolving the contractor of responsibility.  FACTORY GLAZING: All glazing carried out in manufacturer's factory must be in accordance with window fabricated types. Manufacturing of frames must provide for glass, vinyl extrusions, cut-off sharp corners, these are to line up with	

frame/glass rebates.		
GLAZING ON SITE: This is to be carried out in accordance with glass specification previously referred to. Glazing in windows must be undertaken from outside, with drawn vinyl strips, Neoprene gaskets, and not hardening "Bitumastic" putty, as described.		
ADJUSTED LOUVRES: To be adjustable, complete with frame, stiles, centrally pivotted double sprung glass holders, weather beads, glass louvres, burglar proofing, etc.		
SIZES: The sizes given are approximate and are not to be used for ordering purposes, but careful references must be made to the building for exact sizes. Any costs incurred for errors in this respect shall be at the contractor's expense.		
All items are, unless otherwise described, measured net.		
BUILDING IN: Windows, doors, etc. must be set up and build in complete in position in concrete or brickwork and left completely watertight and prices should include thereof.		
ANODISING: Anodising of aluminium sections must comply with SANS 999. Anodising must be a minimum of 25 MIKRON.		
POWDER-COATING: Powder-coating to SANS 1796 specifications with a test certificate available on request. A guarantee of no less than 10 years is to be provided against peeling and discolouration. Allow for non-standard colour powder-coated aluminium as cobalt blue or similar colour.		
PROTECTING: Windows, doors, etc., must, wherever practicable, be erected as near to the end of the contract period as possible to minimise the danger of damage or deterioration and all work must be protected by covering up with temporary casings against damage, deterioration or discolouration caused by mortar droppings, varnish, wax, paint, etc., all to the entire		
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	satisfaction of the Engineer.				
	IRONMONGERY: Window and doors are to be fitted with the necessary locks, door closers, etc., as described and prices should include thereof.				
	DESCRIPTIONS: Descriptions shall be deemed to include all components of the units i.e glass and glazing, ironmongery complete with security lock and latches as per manufacturer's specification, dust seals, timber fixing blocks, protection film, etc.				
	DRAWINGS: Tenderers are referred to Architect's drawings in the addendum for tender purposes .				
	<b>NOTE</b> : Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No 140 for JBCC CPAP purposes				
	6.3mm thick laminated epoxy powder coated safety glass intruder-prufe Hi-impact PVB frosted glass with silicone fill externally and butyl strips with silicone internally and as per manufacturer's specification				
	Guard House				
336	Window size 2400 x 1200mm high aluminium sliding type (WGH01)	No	2		
337	Window size 1500 x 1200mm high aluminium sliding type (WGH02)	No	2		
		NO			
338	Window size 600 x 600mm high (WGH03)	No	2		
	Type 2A Hostel				
339	Window size 900 x 1500mm high (W2AH01)	No	16		
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340	Window size 900 x 900mm high (W2AH02)	No	8		
341	Window size 600 x 900mm high (W2AH03)	No	28		
342	Window size 1200 x 900mm high (W2AH04)	No	47		
343	Window size 900 x 900mm high (W2AH05)	No	4		
	Type 1A Hostel				
344	Window size $900 \times 1500$ mm high (W1AH01)	No	32		
345	Window size 600 x 900mm high (W1AH03)	No	216		
346	Window size 900 x 900mm high (W1AH02)	No	68		
347	Window size 900 x 1200mm high (W1AH04)	No	72		
348	Window size 900 x 900mm high (W1AH05)	No	24		
	TV Room				
349	Window size 600 x 900mm high (WTV02)	No	8		
350	Window size 900 x 1500mm high (WTV01)	No	38		
	Hostel Master				
351	Window size 1500 x 1500mm high (WHM01)	No	2		
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352	Window size 1500 x 1200mm high (WHM02)	No	6		
353	Window size 600 x 600mm high (WHM03)	No	4		
354	Window size 1200 x 900mm high (WHM04)	No	2		
355	Window size 1500 x 600mm high window opening (WHM05)	No	2		
	Hostel Administration				
356	Window size 900 x 1500mm high (W01)	No	8		
357	Window size 900 x 900mm high (W02)	No	11		
358	Window size 600 x 900mm high (W03)	No	3		
359	Window size 1200 x 900mm high (W04)	No	2		
360	Window size 900 x 900mm high, purpose made aluminium sliding type (W05)	No	1		
	Staff House				
361	Window size 1200 x 900mm high (WSH01)	No	8		
362	Window size 900 x 900mm high (WSH02)	No	8		
363	Window size 600 x 900mm high (WSH03)	No	16		
364	Window size 1800 x 1500mm high (WSH04)	No	24		
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365	Window size 1500 x 1500mm	high (WSH05)	No	16		
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	STEEL ROLLER SHUTTERS, ETC.				
	"Roll-Up" garage electrically operated 75 x 1,0mm thick end locked slatted curtain roller shutter with and including motor, wicket gate, ironmongery, lockable push button control, standard bottom rail, overhead box 360mm high, 75mm wide guides, extruded aluminium T-bar with rubber seal, hot dip galvanized ancillary components, including 4,5mm thick end plates, guide rails, etc. fixed in strict accordance with manufacturer's instructions:				
366	Door to suite opening size 2500 x 2100mm high	No	2		
	STRONGROOM DOORS, WALL SAFES AND VENTILATORS				
	The rates for strongroom doors, wall safes and ventilators shall include for fixing in position complete				
367	Double ended 185 x 185mm steel telescopic ventilators built into 270mm thick wall, complete with face plates on both sides, drop shutter mechanism operating from fuseable metal plug, wire gauze and baffle plates	No	2		
368	Record strong room door, two hours fire rating and one key lock standard and frame for overall height and width 2015 x 1125mm fitted strictly as per manufactures details and specification.	No	2		
	RETRACTABLE WASHING LINE				
	Retractaline Clothes or equally approved				
369	1500mm wide x 800mm deep retractable washing line mounted to the wall as per the Architect specification	No	6		
	METAL SUNDRIES				
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	Seats/Chairs			
370	Polypropylene's chair 350mm High with stackable steel frame colour to be determined by the Architect	No	68	
371	Polypropylene's chair 450mm High with stackable steel frame colour to be determined by the Architect	No	88	
372	Computer room Polypropylene's chair 450mm High with stackable steel frame colour to be determined by the Architect	No	22	
	Benches			
373	Slatted seats of 20 x 100mm slats at 25mm centres, fixed to 38 x 38 x 1.2mm powder coated standard duty steel tubing welded to floors	m	129	
374	Slatted seats of 76 x 100mm slats, fixed to 50 x 50mm RHS frame at approximately 550mm centres raw bolted to the floor and the wall, approximately 405mm high	m	40	
	Beds			
375	Learner bed size 1905mm x 910mm x 350mm High with adjustable headrest including High density foam mattress with PVC cover			
		No	68	
376	Learner bed size 1905mm x 910mm x 520mm High with adjustable headrest including High density foam mattress with PVC cover			
		No	88	
377	Sickroom bed size 1905mm x 910mm x 520mm High with adjustable headrest including High density foam mattress with PVC cover			
		No	2	
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	Bill No. 12 METALWORK BID NO.: DOE14NWER015A			

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METALWORK		
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	Quantity	Rate	Amount R
SECTION NO. 2			
BILL NO. 13			
PLASTERING			
PREAMBLES			
For preambles see "Model Preambles for Trades"			
<u>NOTE</u> : Work Group No 142 for JBCC CPAP purposes			
SUPPLEMENTARY PREAMBLES			
<b>NOTE</b> : Screed mix designs must be done by the engineer and the sand tested in a laboratory beforehand. A mechanical mixer is preferred to ensure a homogenous smooth plaster, screed, etc. mixtures and each batch should be mixed for not less than 3 minutes. The time which elapse between the start of mixing a batch and when it is placed, should not exceed 45 minutes and during that time, the mix should be protected from drying out. Regular strength tests must be conducted to these mixes.			
A level screed must be provided and a special large wooden trowel to be used. Screeds should be inspected and tested to determine deviation from datum level and surface regularity. The strength of the screed, once it has dried-out, must be test regular using the "BRE screed tester" as well as tests to check the adhesion between screed and base.			
"Approved" Screed master			
1. Background Preparation			
Carried to collection  Bill No. 13 PLASTERING BID NO.: DOE14NWER015A		R	
	BILL NO. 13  PLASTERING  PREAMBLES  For preambles see "Model Preambles for Trades"  NOTE: Work Group No 142 for JBCC CPAP purposes  SUPPLEMENTARY PREAMBLES  NOTE: Screed mix designs must be done by the engineer and the sand tested in a laboratory beforehand. A mechanical mixer is preferred to ensure a homogenous smooth plaster, screed, etc. mixtures and each batch should be mixed for not less than 3 minutes. The time which elapse between the start of mixing a batch and when it is placed, should not exceed 45 minutes and during that time, the mix should be protected from drying out. Regular strength tests must be conducted to these mixes.  A level screed must be provided and a special large wooden trowel to be used. Screeds should be inspected and tested to determine deviation from datum level and surface regularity. The strength of the screed, once it has dried-out, must be test regular using the "BRE screed tester" as well as tests to check the adhesion between screed and base.  "Approved" Screed master  1. Background Preparation  Carried to collection  Bill No. 13  PLASTERING	SECTION NO. 2  BILL NO. 13  PLASTERING  PREAMBLES  For preambles see "Model Preambles for Trades"  NOTE: Work Group No 142 for JBCC CPAP purposes  SUPPLEMENTARY PREAMBLES  NOTE: Screed mix designs must be done by the engineer and the sand tested in a laboratory beforehand. A mechanical mixer is preferred to ensure a homogenous smooth plaster, screed, etc. mixtures and each batch should be mixed for not less than 3 minutes. The time which elapse between the start of mixing a batch and when it is placed, should not exceed 45 minutes and during that time, the mix should be protected from drying out. Regular strength tests must be conducted to these mixes.  A level screed must be provided and a special large wooden trowel to be used. Screeds should be inspected and tested to determine deviation from datum level and surface regularity. The strength of the screed, once it has dried-out, must be test regular using the "BRE screed tester" as well as tests to check the adhesion between screed and base.  "Approved" Screed master  1. Background Preparation  Carried to collection  Bill No. 13  PLASTERING	SECTION NO. 2  BILL NO. 13  PLASTERING  PREAMBLES  For preambles see "Model Preambles for Trades"  NOTE: Work Group No 142 for JBCC CPAP purposes  SUPPLEMENTARY PREAMBLES  NOTE: Screed mix designs must be done by the engineer and the sand tested in a laboratory beforehand. A mechanical mixer is preferred to ensure a homogenous smooth plaster, screed, etc. mixtures and each batch should be mixed for not less than 3 minutes. The time which elapse between the start of mixing a batch and when it is placed, should not exceed 45 minutes and during that time, the mix should be protected from drying out. Regular strength tests must be conducted to these mixes.  A level screed must be provided and a special large wooden trowel to be used. Screeds should be inspected and tested to determine deviation from datum level and surface regularity. The strength of the screed, once it has dried-out, must be test regular using the "BRE screed tester" as well as tests to check the adhesion between screed and base.  "Approved" Screed master  1. Background Preparation  Carried to collection  R  Bill No. 13  PLASTERING

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	1.2.3	Allow these areas to dry overnight before proceeding.		
	1.2.2	Add RAPIDFIX to clean water and mix until the desired trowelable paste is achieved, which must be lump free and creamy. Do not mixup more than can be used in 20 minutes. Stir occasionally whilst in use. Apply the paste to the area using a steel trowel and work to a smooth level surface.		
	as foll			
1.2	the ur sound must suitab	screeding must be firmly attached to inderlying concrete, must be integrally attached to inderlying concrete, must be integrally and consistency ole for screeding over. All defective must be removed and the floor made		
1.1	cure f All ne have before onto c clean laitand contai	all new concrete work and screeds to for at least 28 days before proceeding.  ew concrete work and screeds must a moisture content of 5% or less e proceeding. When screeding directly concrete, ensure that the surfaces are and free of all traces of curing agents, ce and any other surface minants, preferably by scarifying or blasting.		

1		1		1	
1.3	All 'lows" and voids in the floor must be identified and filled with approved rapid-fixing material prior to applying approved screeding material, and all "highs" or trowel marks must be identified and ground down.				
1.4	The background surface must be free from dust, loose particles and surface contaminants (Vacuuming is preferred).				
	Prime the surface with approved keying slurry consisting of one part approved slurry mixed with two part ordinary cement (by volume) which is brushed onto the floor. Allow the approved keying slurry coat to dry completely, and then prime the floor with a coat of approved floor primer. The approved floor primer application must be allowed to cure for twelve hours before the approved screeding material installation is commenced.				
2.	Screeding				
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PLAST					

2.	Add 22kg approved screeding material to 6 litres of clean, cool water while stirring slowly with an electric drill of at least 700 watts with an approved mixing attachment. The mixing process and application should be continuous. Mix thoroughly until a smooth, lump-free paste is obtained. Allow the mix to stand for 3 minutes, and then stir again for 1 minute. Stir occasionally whilst in use. DO NOT OVER WATER THE MIX. Do not mix up more than can be used in 20 - 30 minutes.		
2.	Pour the mix onto the floor and spread with an approved notched floor rake or an approved straight edge rake to the required thickness (The size of the notch of the approved floor rake or the height adjustment of the approved straight edge rake will determine the thickness).		
2.	Immediately smooth the compound using an approved flat smoothing rake. It is recommended to wear approved spiked shoes during the installation. Roll the area using an approved spiked roller to facilitate the release of any trapped air to produce a smooth surface, and to allow it to dry.		
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	an approved vinyl adhesive.		
	Ensure that the surface is clean and free of dust and loose particles, before proceeding with applying the vinyl floor covering using		
2.6	these joints.  The floor must be left to cure overnight.		
2.5	All designed structural or cold joints in the background substrate must be identified, and saw cuts must be made in the screeding material layer to coincide with		
	3mm to obtain optimum results (A 5mm build is recommended).		
2.4	It is recommended to apply approved screeding material in thicknesses exceeding		

	SCREEDS			
	Screeds on concrete			
378	30mm Thick on floors and landings	m²	5,228	
379	Self levelling screed on floors	m²	2,003	
380	Screed laid to fall towards gulley trap finished with non-slip mosaic floor tiles	m²	62	
	GRANOLITHIC			
	Tinted granolithic finish composed of one part cement, one part fine and two parts coarse sand and one part granite that would pass through a 5mm mesh sieve (Colour, pattern and aggregate size to architect's approval).			
381	30mm Thick on floors.	m²	608	
382	Skirting 75mm high x 20mm thick	m	191	
	EPOXY			
	6mm Thick gloss, anti-slip, hygienic and durable epoxy terrazzo floor with decorative granite and flint aggregate, in strict accordance with the manufacturer's specifications			
383	On floors	m²	1,027	
	INTERNAL PLASTER			
	12mm thick one coat cement plaster with gypsum finish on brickwork			
384	On walls	m²	11,389	
385	On narrow widths	m²	653	
	EXTERNAL PLASTER			
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	12mm thick one coat co	ement plaster with					
386	On walls		m²	81			
387	On narrow widths		m²	12			
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Item No			Quantity	Rate	Amount R
	SECTION NO. 2				
	BILL NO. 14				
	TILING				
	PREAMBLES				
	For preambles see "Model Preambles for Trades"				
	<b>NOTE</b> : Work Group No 144 for JBCC CPAP purposes				
	SUPPLEMENTARY PREAMBLES				
	Descriptions				
	Unless described as "fixed with adhesive to plaster (plaster elsewhere)" descriptions of tiling on brick or concrete walls, columns, etc shall be deemed to include 1:4 cement plaster backing and descriptions of tiling on concrete floors etc shall be deemed NOT to include 1:3 screed bedding  All materials, including adhesive, grouting, etc. will				
	be included in the prime cost amounts.				
	WALL TILING				
	200 x 250 x 8mm white glazed ceramic tiles (PC Amount R250/m2), fixed with approved adhesives to plaster (plaster elsewhere) and jointed with tinted jointing compound				
388	On walls.	m²	1,089		
389	On sills	m	691		
390	On narrow widths	m²	71		
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300 x 600 x 8mm alphine white glazed ceramic tiles (PC Amount R250/m2), fixed with approved adhesives to plaster (plaster elsewhere) and jointed with tinted jointing compound			
On walls.	m²	1,406	
92 On sills	m	1,516	
3 On narrow widths	m²	260	
FLOOR TILING			
600 x 600 x 8mm Ceramic full body tiles (PC Amount R400/m2), fixed with approved adhesives to plaster (plaster elsewhere) and jointed with tinted jointing compound			
4 On floors	m²	451	
Skirting 100mm high	m	605	
600 x 600 x 8mm non- slip Ceramic full body tiles (PC Amount R400/m2), fixed with approved adhesives as per Architect's approval and grout jointing to be continuous in both directions.			
6 On floors	m²	203	
Skirting 100mm high	m	368	
CERAMIC MOSAIC TILES			
40 x 40 x 6mm glass mosaic floor tiles (PC Amount R400/m2) bedded and jointed in tiling cement and with joints continuous in both directions pointed in both directions with coloured tiling cement			
To shower floors to falls	m²	71	
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399	On narrow widths.	m²	3		
	TOILET PAPER HOLDERS, ETC.				
	White glazed ceramic				
400	170 x 170mm x 100mm Single soap dish	No	258		
	ATTIC STOCK				
	Supply only the following items of Atto site after Project Completion and the safekeeping of Moedwil Combine management staff	leave in			
401	200 x 250 x 8mm Ceramic tiles	m²	82		
402	600 x 600 x 8mm Ceramic tiles	m²	446		
403	600 x 600 x 8mm Ceramic tiles (anti-slip	treated) <b>m</b> <sup>2</sup>	216		
404	40 x 40 x 6mm Glass mosaic tiles	m²	34		
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Item No		Quantity	Rate	Amount R
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	BILL NO. 15			
	PLUMBING AND DRAINAGE			
	(PROVISIONAL)			
	PREAMBLES			
	For preambles see "Model Preambles for Trades"			
	<b>NOTE</b> : Work Group No 1148 for JBCC CPAP purposes			
	SUPPLEMENTARY PREAMBLES			
	"Polycop" polypropylene pipes:			
	Polypropylene pipes 54mm diameter and under shall be seamless copper coloured class 16 pipes jointed with "Fast-fuse" heat welded thermoplastic or brass compression fittings as designed for use with copper pipes as stated			
	Pipes shall be firmly fixed to walls etc with coloured nylon snap-in pipe clips with provision for accommodating thermal movement and jointed and fixed strictly in accordance with the manufacturer's instructions			
	All pipe diameters are nominal external			
	"Polylink" polypropylene pipes:			
	Polypropylene pipes 63mm diameter and over shall be class 12 pipes jointed with cast iron "Supraclamp" running joints			
	Fusion welded bends, once or twice mitred as necessary, and tees shall be factory manufactured			
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Fusion welded bends and tees shall include jointing to pipes with PVC rubber ring double Z joint couplers		
Branch tees shall include flanged and bolted joints to "Polycop" branch pipes in addition and for brass compression male iron to copper straight couplers		
Reducers shall include jointing to pipes with PVC rubber ring double Z joint couplers and reducers shall be of sufficient overall length to accommodate same		
All pipes shall be jointed and fixed strictly in accordance with the manufacturer's instructions		
All pipe diameters are nominal external		
Concrete pipes:		
Pipes shall be jointed with ogee joints with rubber collars or socket and spigot joints with rubber rings		
Vitrified clay pipes:		
Pipes shall rest on solid ground and, where necessary, pockets of sufficient size shall be cut around joints to enable the jointing to be properly performed or, alternatively, pipes shall be bedded full length on and including unreinforced concrete laid in a semi-dry state immediately before pipes are laid		
Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings		
uPVC pipes and fittings:		
Soil, waste and vent pipes and fittings shall be solvent weld jointed		
uPVC pressure pipes and fittings:		
Pipes for water supply shall be of the class stated		
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Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings		
Pipes of 50mm diameter and greater shall have sockets and spigots with push in type integral rubber ring joints. Bends shall be uPVC and all other fittings shall be cast iron, all with similar push-in type joints		
Copper pipes:		
Pipes shall be hard drawn and half-hard pipes of the class stated. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), class 2 (half-hard) and class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti-syphon pipes, capillary solder fittings and compression fittings shall be "Cobra Watertech" type. Capillary solder fittings shall comply with ISO 2016. Only compression fittings shall be used in walls or in ground		
Fixing of pipes		
Unless specifically otherwise stated, descriptions of pipes shall be deemed to include fixing to walls etc, casting in, building in or suspending not exceeding 1m below suspension level		
Lead pipes and fittings		
All soldered joints shall be wiped and brass unions shall be used for jointing lead to steel		
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Reducing fittings		1
Where fittings have reducing ends or branches they are described as "reducing". In the case of pipes with diameters not exceeding 60mm only the largest end or branch size is given. Should the contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained. In the case of pipes with diameters exceeding 60mm all sizes are given and no claim for extra bushes, reducers, etc will be entertained		
Wire gratings		
Descriptions of gutter outlets etc shall be deemed to include wire balloon gratings		
Septic tanks		
Descriptions of septic tanks shall be deemed to include excavation, bedding and jointing, concrete base slabs, jointing to drains and backfilling, compaction, etc. all in accordance with the manufacturer's instructions		
Exposed concrete surfaces		
Exposed surfaces of concrete stormwater channels, cover slabs, inspection eye marker slabs, gulley tops, cleaning eye tops, catchpits, inspection chambers, etc shall be finished smooth with plaster		
<u>Excavations</u>		
No claim for rock excavation will be entertained unless the contractor has timeously notified the quantity surveyor thereof prior to backfilling		
"Soft rock" and "hard rock" shall be as defined in "Earthworks"		
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Laying, backfilling, bedding, etc. of pipes			
Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions			
Where no manufacturers' instructions exist pipes shall be laid in accordance with clauses 5.1 and 5.2 of each of the following: SABS 1200 L: Medium-pressure pipelines LD: Sewers LE: Stormwater drainage Pipe trenches etc shall be backfilled in accordance with clauses 3, 5.5, 5.6, 5.7 and 7 of SABS 1200 DB: Earthworks (Pipe trenches) Pipes shall be bedded in accordance with clauses 3.1 to 3.4.1, 5.1 to 5.3 and 7 of SABS 1200 LB: Bedding (Pipes). Unless otherwise described bedding of rigid pipes shall be class B bedding			
Flush pans			
Flush pans shall have straight or side outlets and "P" or "S" traps as necessary			
Stainless steelbasins, sinks, wash troughs, urinals, etc.			
Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable			
Waste unions			
Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings			
Steel sectional water tanks			
Tanks shall comply with SABS CKS 114			
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	"Densyl" petrolatum anti-corrosion tape as manufactured by Denso SA (Pty) Ltd.				
	Pipes to be taped shall be coated with the appropriate primer and the tape shall be applied with minimum 15mm lap per spiral unless otherwise described				
	Couplings and fittings to pipes shall be taped in strict accordance with the manufacturer's instructions including all mastic, tape, "Layflat" sheeting, securing of same, etc.				
	RAINWATER DISPOSAL				
	Seamless Aluminium				
405	125 x 100mm x 0.8mm thick seamless aluminium eaves gutters fixed to falls on splay rebated roof trusses.	m	776		
406	Extra over for stopped end	No	64		
407	Extra over for angle	No	192		
408	100mm diameter, 0.8mm thick seamless aluminium rainwater downpipe fixed to walls.	m	384		
409	Extra over for bend	No	192		
410	Extra over for shoe	No	192		
411	Extra over for eaves or plinth offset	No	192		
	SANITARY FITTINGS				
	Approved				
412	510 x 405mm white vitreous china basin bolted with one pair of 10mm bolts and one tapholes or equally approved.	No	91		
					$\vdash$
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413	510 x 405mm white vitreous china basin with three semi punched tapholes, intergrated overflow and chainstay hole through the centre semi punched taphole bolted with one pair of 10mm bolts and two tapholes or equally approved.	No	22		
414	595 x 455mm oval self rimming vanity basin with three semi punched tapholes, intergrated overflow and chainstay hole through the centre semi punched taphole bolted with one pair of 10mm bolts and two tapholes or equally approved.	No	8		
415	Junior outlet washdown pan and matching 6 litre cistern complete with lid and fitments, and Junior Jazz seat. The suite is designed to flush effectively on 6 litres. Pan can also be used with a duct cistern, or a concealed cistern.	No	8		
416	Low level WC with pan with close coupled 90 degree outlet open rim front flush suite complete with lid and fitments or dual flush suite.				
417	Close coupled 90 degree outlet open rim front single flush suite complete with lid and fitments or dual flush suite	No	75		
	ddai ildsii suite	No	13		
418	Low level suit with matching 9 litre cistern complete with lid, fitments and purpose made C.P. side flush lever mounted on wall adjacent to cistern (left or right).	No	18		
419	Vitreous china wall hung urinal with top inlet or back inlet. Overall size 600 x 385 x 380 mm. Top inlet fittings and back inlet fittings include a spreader (with a 20mm diameter thread), and two hanger brackets.	No	35		
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420	Chrome plated single hole basin mixer manufactured in accordance with SANS 1480:2005 and SANS 226:2004 with Cameo ceramic fireclay drop-in vanity basin colour white, size 595 x 455mm with one tapehole including chainstay hole including flexible overflow tube attachment chainstay hole, fitted into opening in vanity top (elsewhere specified) and sealed with silicone sealant where basin rim meets vanity top.	No	10		
	"Porcelain Enamel " steel baths				
421	$1700 \times 700 \times 390$ mm Deep built-in white bathtub installed on mortar bed and brick support walls (elsewhere measured) with batten support.	No	30		
422	$1700 \times 700 \times 400$ mm Deep built-in white bathtub installed on mortar bed and brick support walls (elsewhere measured) with batten support. (Paraplegic tub)	No	26		
	Sinks, etc.				
423	Stainless steel single end bowl size 428 x 428mm x 190mm drop-in granite counter and including 40mm square stainless steel gallow brackets, all fixed with stainless steel bolts to wall, etc.	No	8		
424	Stainless steel single end bowl overlay sink grade 304 (18/10) size 1200 x 535mm: drop-in one piece pressed sink in formica counter and including 40mm square stainless steel gallow brackets, all fixed with stainless steel bolts to wall, etc.	No	3		
425	Stainless steel double bowl overlay sink grade 304 (18/10) size 1200 x 535mm: drop-in one piece pressed sink in granite counter and including 40mm square stainless steel gallow brackets, all fixed with stainless steel bolts to wall, etc.	No	8		
426	Stainless steel single drop on washtrough, size 600 x 500 x 257mm wide mounted to wall with a pair of galvanised mild steel falcon brackets with a 40mm waste outlet.	No	8		
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427	Stainless steel double washtrough, size $1030 \times 440 \times 300$ mm wide supplied with fixing lugs to mount the trough to the wall.	No	32		
	Concrete Washtroughs				
428	$1200 \times 553 \times 260$ mm Double bowl wall-hung wash tub with radiused internal corners, fitted with two off 25mm square stainless steel gallow brackets	No	2		
	WASTE UNIONS, ETC.				
429	40mm Chromium plated waste union	No	40		
430	40mm chrome plated unslotted bath or sink waste union.	No	69		
	<u>"PVC"</u>				
	TRAPS, ETC.				
	PVC (SANS 1321)				
431	40mm "P" or "S" trap	No	109		
432	38mm CP domical grating	No	35		
433	32 x 40mm CP bottle trap	No	157		
434	40 x 50mm CP bottle trap	No	35		
435	38mm CP urinal flush-valve	No	35		
436	50mm trap with combined chromium plated grid	No	70		
	TAPS, VALVES, ETC.				
437	Chrome plated basin mixer manufactured in accordance with SANS 1480:2005 and SANS 226: 2004 or similar approved	No	102		
438	Carina chrome plated pillar tap with overarm swivel outlet.	No	47		
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439	Single lever bath mixer with diveter hand shower hose & bracket chrome. 1/2'BSP male iron shower hose outlet, aerated bath outlet. 3/4'BSP male iron connection ends.	No	35		
440	15mm 232/350CP angle regulating valve	No	525		
441	15mm "111" Chrome plated star pattern pillartap .	No	117		
442	15mm Chrome plated Square shower head, 200 x 145mm with classic spray, balljoint connector and Anti-lime nipples.	No	70		
443	15mm chrome plated Tudor sink mixer with aerated swivel spout and S-connections with wall flanges, manufactured in accordance with SANS 226:2009 Type 2, installed to manufacturer's recommendations.	No	21		
	SANITARY PLUMBING				
	uPVC pipes				
444	40mm Pipes	m	53		
445	50mm Pipes	m	755		
446	50mm Pipes laid in filling below floors	m	352		
447	110mm Pipes	m	765		
	Extra over uPVC pipes for fittings				
448	40mm Bend	No	75		
449	40mm Access bend	No	150		
450	50mm Access bend	No	418		
451	110mm Pan connector	No	110		
452	110 mm Access bend	No	120		
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453	40 mm Access junction	No	90		
454	50 mm Access junction	No	80		
455	110 mm Access junction	No	55		
456	50 mm Access reducing junction	No	70		
457	50 mm stub stack with one 40mm junction	No	40		
458	50 mm stub stack with one 50mm junction	No	80		
459	110 mm Access reducing junction	No	40		
460	110 mm stub stack with one 50mm junction	No	49		
461	110 mm stub stack with one 110mm junction	No	62		
462	50mm vent valve	No	30		
463	110mm vent valve	No	25		
464	100 x 100 x 50mm Access reducing junction	No	60		
	<u>TESTING</u>				
	ELECTRIC WATER HEATERS				
465	250 Litre horizontal floor/wall mounted electric water heater	No	11		
	DRIP TRAYS				
	0,6mm Galvanised sheet steel				
466	Drip tray including overflow, etc for 250 litre geyser	No	11		
	WATER SUPPLIES				
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	Class "O" copper pipes			
467	15mm Pipes	m	3,184	
468	15mm Pipes chased into wall	m	3,932	
469	22mm Pipes	m	3,029	
	Extra over class "O" copper pipes for capillary fittings			
470	15mm Fittings	No	1,413	
471	22mm Fittings	No	720	
	Copper overflow and service pipes			
472	15mm Service pipe 450mm girth	No	800	
473	22mm Service pipe 450mm girth	No	650	
	FIRE APPLIANCES, ETC.			
474	4.5kg Dry chemical powder fire extinguisher on and including wrought Meranti backboard size 520 x 100 x 22mm thick plugged and screwed to wall and finished with two coats of signal red enamel paint, including 120 x 20 x 2mm mild steel strip bent to form hook.	No	112	
475	Fire hose reel complete with 20mm diameter x 30m rubber hose, chromium plated stopcock, shut-off nozzle and wall brackets, etc.	No	11	
	WATER SUPPLIES TO FIRE APPLIANCES			
	Galvanised mild steel screwed and socketed pipes and fittings			
476	25mm Pipes	m	1,500	
477	25mm Pipes chased into brick walls.	m	750	
478	32mm Pipes	m	1,100	
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479	32mm Pipes chased into brick walls.	m	500		
	Extra over galvanised mild steel pipes for galvanised mild steel fittings				
480	25mm Fittings	No	250		
481	32mm Bush	No	150		
482	32mm Bend	No	350		
483	32mm Tee	No	200		
484	32mm Reducer	No	150		
485	32mm Reducing bend	No	80		
486	32mm Reducing tee	No	90		
487	32mm Union	No	150		
	TESTING				
488	Testing water pipe systems of water supply to sanitary plumbing and fire appliances.		Item		
	LAGGING				
	Approved pipe insulation				
489	Insulation 15mm thick to 15mm pipes and couplings	m	595		
489 490	Insulation 15mm thick to 15mm pipes and	m m	595 832		
	Insulation 15mm thick to 15mm pipes and couplings  Insulation 15mm thick to 22mm Pipes and				
	Insulation couplings  Insulation 15mm thick to 15mm pipes and couplings  Insulation couplings  15mm thick to 22mm Pipes and couplings				
490	Insulation couplings  Insulation 15mm thick to 15mm pipes and couplings  Insulation couplings  **Eundle Sund	m	832		
490	Insulation couplings  Insulation 15mm thick to 15mm pipes and couplings  Insulation couplings  **Eundle Sund	m	832		
490	Insulation couplings  Insulation 15mm thick to 15mm pipes and couplings  Insulation couplings  **Eundle Sund	m	832		
490	Insulation 15mm thick to 15mm pipes and couplings  Insulation 15mm thick to 22mm Pipes and couplings  SUNDRIES  Extra over for wrapping around fittings	m	832	g	
490	Insulation couplings  Insulation 15mm thick to 15mm pipes and couplings  Insulation couplings  **Eundle Sund	m	832	R	

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	BILL NO. 17				
	PAINTWORK				
	PREAMBLES				
	For preambles see "Model Preambles for Trades"				
	<b>NOTE</b> : Work Group No 152 for JBCC CPAP purposes				
	SUPPLEMENTARY PREAMBLES				
	DESCRIPTIONS				
	Descriptions of paintwork shall be deemed to include for all cutting in				
	PREPARATORY WORK TO EXISTING WORK				
	Previously painted plastered surfacesSurfaces shall be thoroughly washed down and allowed to dry completely before any paint is applied. Blistered or peeling paint shall be completely removed and cracks shall be opened, filled with a suitable filler and finished smooth				
	Previously painted metal surfacesSurfaces shall be thoroughly rubbed and cleaned down. Blistered or peeling paint shall be completely removed down to bare metal				
	Previously painted wood surfacesSurfaces shall be thoroughly cleaned down. Blistered or peeling paint shall be completely removed and cracks and crevices shall be primed, filled with suitable filler and finished smooth				
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	PAINT SPECIFICATIONS				
	All painting shall be done in accordance with "Plascon-Evans" specifications				
	PAINTWORK, ETC. TO NEW WORK				
	INTERNAL PLASTER				
	One coat alkali resistant plaster primer, one coat universal undercoat and three coats acrylic PVA paint on				
496	Internal walls	m²	9,563		
497	Narrow widths	m²	494		
	One coat universal undercoat and two coats of double velvet PVA matt finish emulsion paint to				
498	Internal walls	m²	439		
499	Narrow widths	m²	44		
	EXTERNAL PLASTER				
	One coat alkali resistant plaster primer, one coat universal undercoat and three coats acrylic PVA paint on				
500	External walls	m²	25		
501	Narrow widths	m²	62		
	GYPSUM BOARD SURFACES				
	Primer, undercoat and two coats super acrylic PVA paint to manufacturers detail specification.				
502	Ceilings	m²	3,818		
503	Cornices	m	3,711		
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<u> F</u>	IBRE-CEMENT SURFACES			
ec	rimer, undercoat and two coats wall and all or qual approved applied strictly to nanufacturers detail specifications.			
	n fascias and barge boards	m²	784	
<u>o</u>	ne undercoat and two coats acrylic PVA			
05 C	eilings	m²	1,436	
06 C	ornices	m	1,637	
<u>o</u>	N METAL SURFACES			
c	ne coat primer, one coat trade undercoat, two oats hogh gloss enamel (exterior) and two oats non-drip enamel (interior)			
)7 O	n door frames	m²	104	
8 O	n doors	m²	16	
	ates, grilles, burglar screens, balustrades, etc	m²	307	
	n rails, bars, pipes, etc not exceeding 300mm orth.	m	550	
oi co	re-clean and apply one coat calcium plumbate il alkyd primer, one undercoat and two full oats oil alkyd high gloss enamel paint on alvanised steel			
11 O	n pipes not exceeding 300mm girth	m	1,500	
w	OOD SURFACES			
aı	ne coat etch primer, one coat trade undercoat nd two coats high gloss enamel paint on kterior			
12 D	oors.	m²	2,148	
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	Two coats clear eggshell polyurethane varnish				
513	On skirtings	m	3,401		
	PAINTWORK, ETC. TO PREVIOUSLY PAINTED WORK ON (PROVISIONAL)				
	Remove all plaster splashes, loose material and surface contamination by brushing or scraping. Using the appropriate filler, make good to minor defects, which may not be bridged by the paint coating. Allow drying, and ensuring that any powder residues are removed. Apply 1(one) coat of plaster primer, thin primer up to 10% to aid penetration. Apply 1(one) coat of universal undercoat. Undercoat must comply with sabs				
	specification 681. Apply 2(two) coats highly washable enamel paint. Paint must comply with sabs specification 633 grade i.				
514	On walls	m²	62		
	PLASTER BOARD SURFACES WITH				
	One "Professional Gypsum and Plaster Primer" and two coats "Professional Contractor's Matt White" paint				
515	Ceilings and cornices	m²	164		
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	METAL SURFACES WITH				
	Remove any loose and flaking paint. Feather edges, wash surfaces with to remove oil, grease and other contaminants. Rinse thoroughly with fresh water and allow drying, then apply one coat super universal enamel paint on work in sound condition on steel				
516	Windows	m²	54		
517	Door frames	m²	28		
518	IBR profile troughed roofs (measured on flat)	m²	975		
519	Gates, grilles, burglar screens, balustrades, etc (both sides measured over the full flat area)	m²	54		
	WOOD SURFACES WITH				
520	Remove peeling off paint by washing with sugar soap sanding down and applying one wood primer and one coat all Purpose Undercoat, and two coats super universal enamel paint on work  Doors  Spot priming bare wood surfaces with oil wood primer, one coat universal undercoat and two coats super universal enamel paint on work in poor condition on	m²	102		
521	Roof timbers at eaves and verges	m²	131		
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1	ALTERATIONS AND DEMOLITIONS (PROVISIONAL)	49		
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3	CONCRETE, FORMWORK AND REINFORCEMENT	61		
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5	WATERPROOFING	74		
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7	CARPENTRY AND JOINERY	101		
8	FLOOR COVERING, ETC.	104		
9	CEILINGS, ETC.	108		
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11	STRUCTURAL STEELWORK	124		
12	METALWORK	143		
13	PLASTERING	151		
14	TILING	155		
15	PLUMBING AND DRAINAGE (PROVISIONAL)	169		
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17	PAINTWORK	176		
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	SECTION NO. 3				
	BILL NO. 1				
	GENERAL SITEWORKS (PROVISIONAL)				
	PREAMBLES				
	For preambles see "Model Preambles for Trades"				
	SUPPLEMENTARY PREAMBLES				
	NATURE OF GROUND				
	The following are typical examples of descriptions of "nature of ground".				
	Nature of ground				
	The nature of the ground is assumed to be loose sandy material, therefore "earth", but possibly interspersed with "soft rock" or "hard rock".				
	The nature of the ground is assumed to be gravel, therefore "earth", but possibly interspersed with "soft rock" or "hard rock".				
	The nature of the ground is assumed to be silty clay with loose river boulders varying in size up to approximately 450mm diameter, all of which will be deemed as "earth", but possibly interspersed with "hard rock".				
	Trial holes indicate that the nature of the ground is silty clay to a depth of approximately 500mm with fine to medium loose sandy material below, therefore "earth"				
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A soils investigation has been carried out on the site by the engineer and the report is annexed to these bills of quantities. The soils report indicates that the ground varies between silty sand, reworked soil of mixed origin and residual shale, all of which will be deemed as "earth". All very hard unweathered shale, ironstone, etc, the removal of which necessitates the use of explosives or heavy duty hydraulic percussion hammers (peckers), will be classified as "hard rock".		
SUB-TERRANEAN WATER		
<u>User note</u>		
The following are typical examples of descriptions of "subterranean water".		
Subterranean water		
No subterranean water is expected.		
GENERAL		
Foundations shall not be laid until excavations have been approved of, in writing, by the Principal Agent and/or Civil Engineer and such excavations shall not be covered until any variation has been measured.		
Excavation for working space in rock		
Notwithstanding clause 11 page 8 of the Standard System of Measuring Building Work, excavation for working space in rock will be measured in cubic metres to the extent executed and given as "extra over" bulk excavation or trench and hole excavation as the case may be.		
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Carting away of excavated material				
Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site to a suitable dumping site outside the boundary of the site.				
Filling				
All filling material to be utilised shall be approved beforehand by the Principal Agent and/or Civil Engineer prior to ordering. A sample of 60 Kg of such proposed fill shall be made available by the contractor, with a 14 days period set aside for carrying out such sample testing.				
Notwithstanding the reference to prescribed multiple handling in clause 1 page 6 of the Standard System of Measuring Building Work, prices for filling and backfilling shall include for all selection and any necessary multiple handling of material.				
<u>User note</u>				
When no information regarding density tests is available the following preamble in respect of testing may be inserted.				
Testing				
Prices for filling are to include for all necessary density tests in accordance with SANS 1200D.				
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	<u>User Note</u>					
	Soil poisoning shall be conducted with an approved registered soil poisoning material of the chlordane or aldrin type mixed with water and then applied at a rate of not less than 5 litres per square metre. The concentration of the solution shall be in accordance with the manufacturer's instructions, to the approval of the Principal Agent and/or Civil Engineer and undertaken under such supervision.					
	<u>NOTE</u> : Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No 104 for JBCC CPAP purposes					
	BULK EXCAVATION, FILLING, ETC.					
	NOTE: Work Group No 104 for JBCC CPAP purposes					
	Open face excavation in earth over sloping site					
1	Open face excavation (including widening and depth to be approved by the engineer) to form a platform	m³	1,705			
			1,700			
	TO 4					
	Extra over bulk excavation in earth for excavation in					
2		m³	170			
2 3	excavation in	m³	170 85			
	Soft rock					
	excavation in  Soft rock  Hard rock					
3	Extra over all excavations for carting away  Surplus material from excavations and/or stock piles on site to a dumping site to be located by the	m³	85			
3	Soft rock  Hard rock  Extra over all excavations for carting away  Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor 5km from the building site  Carried to collection	m³	85	F	2	
3	Soft rock  Hard rock  Extra over all excavations for carting away  Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor 5km from the building site	m³	85	F	2	

		1	1		11	
	Risk of collapse of excavations					
5	Sides of bulk excavations not exceeding 1,5m deep	m²	1,149			
	Keeping excavations free of water					
6	Keeping excavations free of all water other than subterranean water		Item			
	FILLING, ETC.					
	Earth filling supplied by the contractor compacted to 93% Mod AASHTO density					
7	Selected sub-grade of G7 material in accordance with SABS 1200 DM compacted to 93% Mod AASHTO density in 150mm think layers.	m³	1,705			
8	Layers of 150mm thick selected sub-grade material	m³	11,138			
	Earth filling (MinCBR at 93% Mod AASHTO = 25; Max PI = 10) supplied by the contractor compacted to 93% Mod AASHTO density					
9	In-situ rip and recompact filling compacted to 90% Mod AASHTO density	m³	1,705			
	Prescribed density tests on filling					
)	"Modified AASHTO Density" test	No	190			
	Keeping excavations free of water					
1	Keeping excavations free of all water other than subterranean water		Item			
	RETAINING STRUCTURES					
	EARTHWORKS					
	<b>NOTE</b> : Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No 104 for JBCC CPAP purposes					
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	Excavation not exceeding 2m deep	]	İ		1
12	Trenches	m³	599		
	Risk of collapse of excavations				
13	Sides of trench and hole excavations not exceeding 1,5m deep	m²	1,198		
	CONCRETE, FORMWORKAND REINFORCEMENT				
	REINFORCED CONCRETE				
	<u>NOTE</u> : Work Group No 110 for JBCC CPAP purposes				
	30MPa/19mm reinforced concrete				
14	Concrete wall	m³	352		
	20MPa/19mm reinforced concrete				
15	Strip footings	m³	183		
	FORMWORK				
	<u>NOTE</u> : Work Group No 111 for JBCC CPAP purposes				
	Rough formwork to sides				
16	Edges not exceeding 300mm high	m	1,222		
	REINFORCEMENT				
	<u>NOTE</u> : Work Group No 114 for JBCC CPAP purposes				
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	Steel reinforcement to structural concrete (Provisional)				
17	High yield bars [various]	t	21.03		
	INTERLOCKING PLANTER UNITS				
	<b>NOTE</b> : Work Group No 110 for JBCC CPAP purposes				
	Precast concrete interlocking planter units finished smooth on exposed surfaces				
18	Retaining walls with stepped face and curves as required to suit slopes, of 450 x 350 x 225mm high type L300 interlocking units laid with horizontal bed joints to 70 degree slope, including backfilling not exceeding 500mm wide with earth obtained from the excavations and filling units with garden soil lightly tamped as the work proceeds	m²	1,456		
	MOVEMENT JOINTS, ETC.				
	Movement joints				
19	Movement joint not exceeding 300mm high formed of 12mm bitumen impregnated softboard placed vertical in position between concrete stormwater channel and brick walls or concrete aprons, etc including raking out top section 10mm deep and filling with bituminous compound	m	12,411		
	REINFORCEMENT				
	<b>NOTE</b> : Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No 114 for JBCC CPAP purposes				
	Reinforcement				
20	Type 193 fabric reinforcement in concrete surface beds, slabs, channels etc	m²	3,616		
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	TESTING				
21	Provide all necessary apparatus water, etc for and test the whole of the Sanitary Plumbing and Water Supply installation to the satisfaction of the Representative/Agent and Municipality, replace any defective work free of charge and leave perfect		Item		
	WATER RETICULATION				
	Excavations, filling, etc.				
22	Excavations not exceeding 2m deep	m³	3,214		
23	Extra over excavation in earth for pipe trenches, chambers, etc for excavation in soft rock	m³	321		
24	Extra over excavation in earth for pipe trenches, chambers, etc for excavation in hard rock	m³	161		
25	Selected granular filling in bedding under and around pipes	m³	1,607		
26	Backfilling in in-situ material compacted to 90% MOD AASHTO Density	m³	1,612		
27	Risk of collapse not exceeding 1,5m deep	m²	10,383		
	Socketed, ended uPVC Pipes including couplings, fittings, etc.				
28	40mm Diameter "Class 6" uPVC pipes	m	90		
29	50mm Diameter "Class 6" uPVC pipes	m	370		
30	63mm Diameter "Class 6" uPVC pipes	m	1,415		
31	90mm Diameter "Class 6" uPVC pipes	m	467		
	Sundry fittings				
32	40mm Diameter bend	No	30		
33	50mm Diameter bend	No	123		
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34	63mm Diameter bend	No	472		
35	90mm Diameter bend	No	156		
36	63mm x 50mm Y junction	No	124		
37	90mm Diameter tee	No	96		
01		No	50		
38	TAPS, VALVES, ETC.  Chrome plated pillar spigot with overarm swivel	_			
	outlet.	No	16		
20	WATER TANK				
39	4.88 x 4.88 x 3.66m high 87.16 m3 capacity Water tank with wall thickness 4.5mm and steel frames and panels to be hot dip galvanised with zinc (essential for corrosion protection) Tank to be placed on reinforced concrete ground beams as per manufacturer's specification (Engineer's specification)				
	,		Item		
	TESTING				
40	Provide all necessary apparatus water, etc for and test the whole of the Sanitary Plumbing and Water Supply installation to the satisfaction of the Representative/Agent and Municipality, replace any defective work free of charge and leave perfect		Item		
	SOIL DRAINAGE				
	<u>NOTE</u> : Work Group No 146 for JBCC CPAP purposes				
	Excavations, filling, etc.				
41	Excavations not exceeding 2m deep	m³	205		
42	Extra over excavation in earth for pipe trenches, chambers, etc for excavation in soft rock	m³	20		
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Extra over excavation in earth for pipe trenches, chambers, etc for excavation in hard rock  Selected granular filling in bedding under and around pipes  Backfilling in in-situ material compacted to 90% MOD AASHTO Density  Risk of collapse not exceeding 1,5m deep  Socketed, ended uPVC Pipes including couplings, fittings, etc.  110mm Diameter "Class 34" uPVC pipes  Mod Dam Diameter "Class 34" uPVC pipes  Tomm Diameter "Class 34" uPVC pipes  STORMWATER DRAINAGE  Excavations, filling, etc.  Excavations, filling, etc.  Extra over excavation in earth for pipe trenches, chambers, etc for excavation in soft rock  Extra over excavation in earth for pipe trenches, chambers, etc for excavation in hard rock  Selected granular filling in bedding under and around pipes  Backfilling in in-situ material compacted to 90% MOD AASHTO Density  Risk of collapse exceeding 1,5m deep  Precast concrete stormwater pipes  Selem Diameter precast concrete pipe class 75D  Carried to collection  Bill No. 1  GENERAL SITEWORKS BID NO: DOE14NWER015A	
around pipes m³ 185  Backfilling in in-situ material compacted to 90% m³ 185  Kisk of collapse not exceeding 1,5m deep m² 1,080  Socketed, ended uPVC Pipes including couplings, fittings, etc.  110mm Diameter "Class 34" uPVC pipes m 1,175  160mm Diameter "Class 34" uPVC pipes m 1,195  STORMWATER DRAINAGE  Excavations, filling, etc.  Extra over excavation in earth for pipe trenches, chambers, etc for excavation in soft rock m³ 83  Extra over excavation in earth for pipe trenches, chambers, etc for excavation in hard rock m³ 41  Selected granular filling in bedding under and around pipes m³ 146  Backfilling in in-situ material compacted to 90% m³ 332  Risk of collapse exceeding 1,5m deep m² 732  Risk of collapse exceeding 1,5m deep m² 98  Precast concrete stormwater pipes  Selemm Diameter precast concrete pipe class 75D m 244  Carried to collection R	
MOD AASHTO Density m² 185  Risk of collapse not exceeding 1,5m deep m² 1,080  Socketed, ended uPVC Pipes including couplings, fittings, etc.  47 110mm Diameter "Class 34" uPVC pipes m 1,175  48 160mm Diameter "Class 34" uPVC pipes m 1,195  STORMWATER DRAINAGE  Excavations, filling, etc.  49 Excavations not exceeding 2m deep m³ 830  Extra over excavation in earth for pipe trenches, chambers, etc for excavation in soft rock m³ 83  51 Extra over excavation in earth for pipe trenches, chambers, etc for excavation in hard rock m³ 41  52 Selected granular filling in bedding under and around pipes m³ 146  53 Backfilling in in-situ material compacted to 90% MOD AASHTO Density m³ 332  54 Risk of collapse exceeding 1,5m deep m² 732  Risk of collapse not exceeding 1,5m deep m² 98  Precast concrete stormwater pipes  56 825mm Diameter precast concrete pipe class 75D m 244	
Socketed, ended uPVC Pipes including couplings, fittings, etc.  47 110mm Diameter "Class 34" uPVC pipes m 1,175  48 160mm Diameter "Class 34" uPVC pipes m 1,195  STORMWATER DRAINAGE  Excavations, filling, etc.  49 Excavations not exceeding 2m deep m 830  50 Extra over excavation in earth for pipe trenches, chambers, etc for excavation in soft rock m 83  51 Extra over excavation in earth for pipe trenches, chambers, etc for excavation in hard rock m 41  52 Selected granular filling in bedding under and around pipes m 146  53 Backfilling in in-situ material compacted to 90% m 332  54 Risk of collapse exceeding 1,5m deep m 98  Precast concrete stormwater pipes  56 825mm Diameter precast concrete pipe class 75D m 244	
couplings, fittings, etc.  47 110mm Diameter "Class 34" uPVC pipes m 1,175  48 160mm Diameter "Class 34" uPVC pipes m 1,195  STORMWATER DRAINAGE  Excavations, filling, etc.  49 Excavations not exceeding 2m deep m³ 830  50 Extra over excavation in earth for pipe trenches, chambers, etc for excavation in soft rock m³ 83  51 Extra over excavation in earth for pipe trenches, chambers, etc for excavation in hard rock m³ 41  52 Selected granular filling in bedding under and around pipes m³ 146  53 Backfilling in in-situ material compacted to 90% MOD AASHTO Density m³ 332  54 Risk of collapse exceeding 1,5m deep m² 732  55 Risk of collapse not exceeding 1,5m deep m² 98  Precast concrete stormwater pipes  56 825mm Diameter precast concrete pipe class 75D m 244	
160mm Diameter "Class 34" uPVC pipes m 1,195  STORMWATER DRAINAGE  Excavations, filling, etc.  Excavations not exceeding 2m deep m² 830  Extra over excavation in earth for pipe trenches, chambers, etc for excavation in soft rock m² 83  Extra over excavation in earth for pipe trenches, chambers, etc for excavation in hard rock m³ 41  Selected granular filling in bedding under and around pipes m² 146  Backfilling in in-situ material compacted to 90% MOD AASHTO Density m² 332  Risk of collapse exceeding 1,5m deep m² 732  Risk of collapse not exceeding 1,5m deep m² 98  Precast concrete stormwater pipes  825mm Diameter precast concrete pipe class 75D m 244  Carried to collection R	
STORMWATER DRAINAGE  Excavations, filling, etc.  49 Excavations not exceeding 2m deep m³ 830  50 Extra over excavation in earth for pipe trenches, chambers, etc for excavation in soft rock m³ 83  51 Extra over excavation in earth for pipe trenches, chambers, etc for excavation in hard rock m³ 41  52 Selected granular filling in bedding under and around pipes m³ 146  53 Backfilling in in-situ material compacted to 90% MOD AASHTO Density m³ 332  54 Risk of collapse exceeding 1,5m deep m² 732  55 Risk of collapse not exceeding 1,5m deep m² 98  Precast concrete stormwater pipes  56 825mm Diameter precast concrete pipe class 75D m 244	
Excavations, filling, etc.  Excavations not exceeding 2m deep m³ 830  Extra over excavation in earth for pipe trenches, chambers, etc for excavation in soft rock m³ 83  Extra over excavation in earth for pipe trenches, chambers, etc for excavation in hard rock m³ 41  Selected granular filling in bedding under and around pipes m³ 146  Backfilling in in-situ material compacted to 90% MOD AASHTO Density m³ 332  Risk of collapse exceeding 1,5m deep m² 732  Risk of collapse not exceeding 1,5m deep m² 98  Precast concrete stormwater pipes  825mm Diameter precast concrete pipe class 75D m 244  Carried to collection R  Bill No. 1 GENERAL SITEWORKS	
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Bill No. 1 GENERAL SITEWORKS	

	CONCRETE STORMWATER CHANNELS ETC				
	<u>NOTE</u> : Work Group No 110 for JBCC CPAP purposes				
	Mass concrete with a coarse aggregate of 19mm and a minimum compressive strength of 25MPa at 28 days				
57	Concrete channel 1500mm wide x 100mm thick with rounded salient edges and finished on exposed surfaces with 2:1 cement mortar, laid to falls in panels not exceeding 1,8m long with 12mm bitumen impregnated softboard movement joints with exposed edges raked out for a depth of 10mm and filled with bituminous compound including all necessary excavations and formwork.	m	1,944		
58	Extra for fair open end	No	931		
59	Extra for fair stopped end	No	690		
60	Extra for angle intersection	No	595		
61	Extra for T-intersection	No	835		
	INSPECTION CHAMBERS				
	Main Hole of concrete bottom, brick walls, concrete slab, channels, channel junctions, channel bends, internal plaster and 450 x 600mm heavy duty "type C" storm water grating and frame				
62	Main hole 1100mm x 2000mm x 2350mm deep not exceeding 2500mm deep internally	No	5		
63	560mm Diameter VP4L Heavy-duty lockable single-seal manhole cover and frame	No	5		
64	450mm Diameter precast concrete pipe	m	40		
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65	1300mm Diameter 250 x 500 x 1000mm Precast concrete chamber rings with polypropylene with steel reinforcement overall length 185mm with tail piece 70mm x 25mm diameter step iron. SABS 1289 specification  STORMWATER DRAINAGE SUNDRIES	No	10		
66	300mm wide mentis steel grating	m	24		
	TESTING				
67	Provide all necessary apparatus water, etc for and test the whole of the Sanitary Plumbing and Water Supply installation to the satisfaction of the Representative/Agent and Municipality, replace any defective work free of charge and leave perfect		Item		
	COVERED WALKWAYS AND DRYING				
	YARD				
	PAVING TO WALKWAYS AND DRYING YARDS				
	<b>NOTE</b> : Work Group No 104 for JBCC CPAP purposes				
	Excavation in earth not exceeding 2m deep				
68	Reduced levels under paving	т³	819		
69	Holes	т³	7		
	Extra over bulk excavation in earth for excavation in (Provisional)				
70	Soft rock	m³	6		
71	Hard rock	m³	3		
	FILLING, ETC.				
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	Earth filling supplied by the contractor under pavings etc			
72	150mm Base layer granular material stabilised to C4 compacted to 97% MOD AASHTO density	m³	466	
73	150mm Sub-grade layer of G6 material compacted to 95% MOD AASHTO density	m³	466	
74	150mm Sub-grade layer of G7 material compacted to 93% MOD AASHTO density	m³	466	
75	150mm Layer in-situ material compacted to 90% MOD AASHTO density	m³	493	
	Sand filling			
76	50mm thick dry, clean, washed riversand layer evenly spread	m²	3,104	
	Compaction of surfaces			
77	Compaction of ground surface under floors etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m²	3,104	
	Prescribed density tests on filling			
78	"Modified AASHTO Density" test	No	4	
	SOIL POISONING			
	Weed killer			
79	Under pavings, etc. and sprayed over previously wetted ground	m²	3,104	
	FENCING DETAIL TO DRYING YARD			
	<b>NOTE</b> : Work Group No 136 for JBCC CPAP purposes			
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	Invisible Wall Fencing System				
80	Anti-cut, anti-climb, anti-theft, high density and high tensile, transparent mesh panel in invisible wall fence 2120mm high with 90 degree top apertures including maintenance-free Everlast coating system	m	302		
81	1800 x 900mm wide single gate consisting of 50 x 2.8mm tubular frames with bracing as shown complete with 4 hinges bolts and 2 barrel bolt including 10mm diameter steel rod welded to gate for fixing of Anti-cut, Anti-climb, Anti theft	N. o.	10		
		No	10		
82	100 x 100mm Square hollow section steel column	No	206		
83	900mm Wide x 2100mm high overall swing gate including posts, hinges, hasp and staple, etc.	No	12		
	WASHING LINE				
	EXCAVATION, FILLING, ETC.				
	NOTE: Work Group No 104 for JBCC CPAP purposes				
	Excavation in earth not exceeding 2m deep				
84	Holes	m³	13		
	Filling supplied by the contractor				
85	150mm Base layer of G6 material compacted to 95% Mod AASHTO density	m³	14		
	Risk of collapse of excavations				
86	Risk of collapse not exceeding 1,5m deep	m²	45		
					1
	Carried to collection			R	
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	Extra over all excavations for carting away				1	1
87	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m³	13			
	Keeping excavations free of water					
88	Keeping excavations free of all water other than subterranean water		Item			
	UNREINFORCED CONCRETE					
	25MPa/19mm Unreinforced concrete					
89	Bases	m³	22			
	<u>METALWORK</u>					
	<b>NOTE</b> : Work Group No 136 for JBCC CPAP purposes					
	Washing line and post					
90	76.2mm Diameter x 3mm thick mild steel tubing column	No	140			
91	76.2mm Diameter x 3mm thick mild steel tubing bar with half sphere end caps	No	140			
92	76.2mm Diameter x 3mm thick mild steel tubing bracing	No	140			
93	3mm diameter stainless steel line, fixed tight to the T-bars	m	584			
94	50mm Diameter x 2mm thick mild steel tubing bar diagonal support	No	280			
	STRUCTURAL STEELWORK (COVERED PARKING)					
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	Descriptions				
	Descriptions of bolts shall be deemed to include nuts and washers				
	Descriptions of L-shaped and U-shaped anchor bolts shall be deemed to include bending, threading, nuts and washers and embedding in concrete				
	Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete				
	Descriptions of L-shaped and U-shaped anchor bolts shall be deemed to include bending, threading, nuts and washers and embedding in concrete. Where anchor bolts are described as embedded in sides or soffits of concrete it shall be deemed to include holes through formwork.				
	<b>NOTE</b> : Work Group No 134 for JBCC CPAP purposes				
	Welded columns in single lengths with flat section base, top, bearer and connection plates bolted to:				
95	200mm diameter CHS columns	t	1.75		
96	$300 \times 300 \times 6 \text{mm M/S}$ Plate Welded to and bolted to RC Footing to Engineer's Details	t	0.11		
	Welded beams in single lengths with flat section bearer and connection plates bolted to columns				
97	100x 100mm x 3mm RHS section beams	t	3.50		
	Bolts to columns, beams, etc				
98	High tensile bolts	t	1.40		
					_
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	PURLINS, GIRTS, BRACING, ETC.				
	Purlins and girts bolted to steel				
99	$100 \times 50 \times 20 \times 2$ mm Lipped channel section purlins	t	2.22		
100	50 x 100 x 3mm RHS Rafters	t	1.36		
	Welded bracing etc with flat section connection plates bolted to steel				
101	60mm diameter x 3mm CHS bracing	t	1.75		
	<u>TESTS</u>				
	Weld testing				
102	Welding tests	No	25		
	ROOF COVERINGS, ETC.				
	<b>NOTE</b> : Work Group No 124 for JBCC CPAP purposes				
	EMBOSSED PROFILED ROOFING				
	0,6mm Thick IBR roof sheeting and accessories fixed to structural steel purlins or rails in strict accordance with manufacturer's specifications				
103	Roof coverings with pitches not exceeding 25 degrees	m²	780		
	Carried to collection			R	
	Bill No. 1 GENERAL SITEWORKS BID NO.: DOE14NWER015A				

Section No. 3		
Bill No. 1		
GENERAL SITEWORKS		
COLLECTION PAGE		
	Page No	Amount R
Total Brought Forward from Page No.	178	
Total Brought Forward from Page No.	179	
Total Brought Forward from Page No.	180	
Total Brought Forward from Page No.	181	
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Total Brought Forward from Page No.	192	
Total Brought Forward from Page No.	193	
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Carried Forward to Summary of Section No. Bill No. 1		R
GENERAL SITEWORKS BID NO.: DOE14NWER015A		
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Item No		Quantity	Rate	Amount R
	SECTION NO. 3			
	BILL NO. 2			
	PUMP HOUSE AND REFUSE BAY (PROVISIONAL)			
	PREAMBLES			
	For preambles see "Model Preambles for Trades"			
	SUPPLEMENTARY PREAMBLES			
	NATURE OF GROUND			
	The following are typical examples of descriptions of "nature of ground".			
	Nature of ground			
	The nature of the ground is assumed to be loose sandy material, therefore "earth", but possibly interspersed with "soft rock" or "hard rock".			
	The nature of the ground is assumed to be gravel, therefore "earth", but possibly interspersed with "soft rock" or "hard rock".			
	The nature of the ground is assumed to be silty clay with loose river boulders varying in size up to approximately 450mm diameter, all of which will be deemed as "earth", but possibly interspersed with "hard rock".			
	Trial holes indicate that the nature of the ground is silty clay to a depth of approximately 500mm with fine to medium loose sandy material below, therefore "earth"			
	Carried to collection  Bill No. 2  PUMP HOUSE AND REFUSE BAY  BID NO.: DOE14NWER015A		R	
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A soils investigation has been carried out on the site by the engineer and the report is annexed to these bills of quantities. The soils report indicates that the ground varies between silty sand, reworked soil of mixed origin and residual shale, all of which will be deemed as "earth". All very hard unweathered shale, ironstone, etc, the removal of which necessitates the use of explosives or heavy duty hydraulic percussion hammers (peckers), will be classified as "hard rock".		
SUB-TERRANEAN WATER		
<u>User note</u>		
The following are typical examples of descriptions of "subterranean water".		
Subterranean water		
No subterranean water is expected.		
GENERAL		
Foundations shall not be laid until excavations have been approved of, in writing, by the Principal Agent and/or Civil Engineer and such excavations shall not be covered until any variation has been measured.		
Excavation for working space in rock		
Notwithstanding clause 11 page 8 of the Standard System of Measuring Building Work, excavation for working space in rock will be measured in cubic metres to the extent executed and given as "extra over" bulk excavation or trench and hole excavation as the case may be.		
Carried to collection	R	
Bill No. 2 PUMP HOUSE AND REFUSE BAY BID NO.: DOE14NWER015A		

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	Carting away of excavated material				
	Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site to a suitable dumping site outside the boundary of the site.				
	Filling				
	All filling material to be utilised shall be approved beforehand by the Principal Agent and/or Civil Engineer prior to ordering. A sample of 60 Kg of such proposed fill shall be made available by the contractor, with a 14 days period set aside for carrying out such sample testing.				
	Notwithstanding the reference to prescribed multiple handling in clause 1 page 6 of the Standard System of Measuring Building Work, prices for filling and backfilling shall include for all selection and any necessary multiple handling of material.				
	<u>User note</u>				
	When no information regarding density tests is available the following preamble in respect of testing may be inserted.				
	Testing				
	Prices for filling are to include for all necessary density tests in accordance with SANS 1200D.				
	Carried to collection		R		_
	Bill No. 2		K		=
	PUMP HOUSE AND REFUSE BAY BID NO.: DOE14NWER015A				

	<u>User Note</u>				
	Soil poisoning shall be conducted with an approved registered soil poisoning material of the chlordane or aldrin type mixed with water and then applied at a rate of not less than 5 litres per square metre. The concentration of the solution shall be in accordance with the manufacturer's instructions, to the approval of the Principal Agent and/or Civil Engineer and undertaken under such supervision.				
	<b>EARTHWORKS</b>				
	NOTE: Work Group No 104 for JBCC CPAP purposes				
	EXCAVATION, FILLING, ETC.				
	Excavation in earth not exceeding 2m deep				
104	Trenches	m³	8		
	Extra over trench excavation in earth for excavation in				
105	Soft rock	m³	1		
106	Hard rock	m³	0.4		
	Extra over all excavations for carting away				
107	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m³	8		
	Risk of collapse of excavations				
108	Sides of trench and hole excavations not exceeding 1,5m deep	m²	81		
	Keeping excavations free of water				
109	Keeping excavations free of all water other than subterranean water		Item		
	Carried to collection			R	
	Bill No. 2 PUMP HOUSE AND REFUSE BAY BID NO.: DOE14NWER015A				

	FILLING, ETC.				
	Earth filling obtained from the excavations and/or prescribed stock piles on site compacted to 93% Mod AASHTO density				
110	Backfilling to trenches, holes, etc	т³	5		
	Earth filling G7 (MinCBR at 93% Mod AASHTO = 25; Max PI = 10) supplied by the contractor compacted to 93% Mod AASHTO density				
111	Under floors, steps, pavings, etc	m³	7		
	Compaction of surfaces				
112	Compaction of ground surface under floors etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 93% Mod AASHTO density	m²	35		
	Prescribed density tests on filling				
113	"Modified AASHTO Density" test	No	3		
	SOIL POISONING				
	Soil insecticide to surfaces and appropriate soil poisoning certificate SANS 0124 to be provided.				
114	Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m²	35		
115	To bottoms and sides of trenches etc	m²	91		
	CONCRETE, FORMWORKAND REINFORCEMENT				
	NOTE: Work Group No 110 for JBCC CPAP purposes				
	Carried to collection Bill No. 2 PUMP HOUSE AND REFUSE BAY BID NO.: DOE14NWER015A			R	

	REINFORCED CONCRETE				
	30MPa/19mm concrete				
116	Slabs	m³	4		
117	Raft foundation beams	m³	8		
	TEST CUBES				
118	Allow for making set of three 150 x 150 x 150mm test cubes.	Sets	6		
	CONCRETE SUNDRIES				
	Finishing top surfaces of concrete smooth with a wood float				
119	Surface beds, slabs, etc	m²	35		
	<u>FORMWORK</u>				
	<u>NOTE</u> : Work Group No 111 for JBCC CPAP purposes				
	ROUGH FORMWORK (DEGREE OF ACCURACY II)				
	Rough formwork to sides				
120	Foundation beams (Provisional)	m²	81		
121	Edges, risers, ends and reveals not exceeding 300mm high or wide	m	9		
	MOVEMENT JOINTS ETC				
	Expansion joints with bitumen-impregnated softboard between vertical concrete and brick surfaces				
122	10mm Joints not exceeding 300mm high or wide	m	34		
	Carried to collection			R	
	Bill No. 2 PUMP HOUSE AND REFUSE BAY BID NO.: DOE14NWER015A				

	REINFORCEMENT				
	<b>NOTE</b> : Work Group No 114 for JBCC CPAP purposes				
	Mild steel reinforcement to structural concrete work				
123	8mm Diameter bars	t	0.54		
124	12mm Diameter bars	t	0.75		
	Fabric reinforcement				
125	Type 193 fabric reinforcement in concrete surface beds, slabs, etc	m²	35		
	MASONRY				
	<b>NOTE</b> : Work Group No 118 for JBCC CPAP purposes				
	FOUNDATIONS				
	Brickwork of NFPE bricks (17 MPa nominal compressive strength) in class I mortar in loadbearing walls, etc.				
126	One brick walls	m²	5		
	FACE BRICKWORK (PROVISIONAL)				
	Face brick (PC Amount R7000,00/1000) pointed with recessed horizontal and vertical joints. Face brick FBS in common running bond to comply with SABS 227 and forming part of the structural work and mortar joints keyed to approval.				
127	Extra over brickwork for face brickwork on foundations	m²	3		
	Carried to collection  Bill No. 2  PUMP HOUSE AND REFUSE BAY  BID NO.: DOE14NWER015A			R	<del>-</del>

	SUPERSTRUCTURE			
	Brickwork of NFX bricks in class II mortar			
128	Half brick walls in beamfilling	m²	2	
129	One brick walls in beamfilling	m²	1	
130	One brick walls	m²	80	
	BRICKWORK SUNDRIES			
	Miscellaneous			
131	Fill top of pressed steel door frame not exceeding 300mm girth with cement mortar and trowel smooth	m	216	
132	150 x 150mm Weep holes to brickwork	No	8	
	Brickwork reinforcement			
133	75mm Wide reinforcement built in horizontally	m	2	
134	150mm Wide reinforcement built in horizontally	m	49	
	Concrete prestressed fabricated lintels			
135	110 x 70mm Lintels in lengths not exceeding 3m	m	1	
	Galvanised hoop iron cramps, ties, etc.			
136	$30 \times 1.6$ mm Roof tie $1.5$ m long with one end fixed to timber and other end built into brickwork.	No	8	
	Bagging of 1:3 cement and sand mixture			
137	On brick walls	m²	79	
	FACE BRICKWORK			
	Carried to collection			R
	Bill No. 2 PUMP HOUSE AND REFUSE BAY BID NO.: DOE14NWER015A			

	Topaz Travertine FBS Face brick (PC Amount R7000,00/1000) pointed with recessed horizontal and vertical joints. Face brick FBS in common running bond to comply with SABS 227 and forming part of the structural work and mortar joints keyed to approval.				
138	Extra over brickwork for face brickwork	m²	159		
139	Extra over brickwork for breeze wall face brickwork	m²	3		
	Brick-on-edge header course copings, sills, etc. of Face bricks (PC Amount R4000/1000) pointed with recessed joints on all exposed faces				
140	Brick-on-edge coping to one brick wall.	m	32		
141	Extra over brickwork for brick-on-edge header course lintel	m	1		
	WATERPROOFING				
	<b>NOTE</b> : Work Group No 120 for JBCC CPAP purposes				
	DAMP-PROOFING OF WALLS AND FLOORS				
	One layer of 375 micron black embossed polyethylene damp-proof course (SANS 952-1985 Type B)				
142	In walls	m²	12		
	One layer of 250 micron thick gunplus usb green damp-proof membrane (SANS 952-1985 Type C) sealed at laps with PVC self-adhesive tape				
143	Under surface beds	m²	35		
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	ROOF COVERINGS ETC				
	<b>NOTE</b> : Work Group No 124 for JBCC CPAP purposes				
	EMBOSSED PROFILED ROOFING				
	O,6mm Thick IBR roof sheeting with pre- painted finish and accessories fixed to timber purlins or rails in strict accordance with manufacturer's specifications				
144	Roof coverings with pitches not exceeding 5 degrees	m²	16		
	ROOF AND WALL INSULATION				
	Lightweight industrial grade reinforced aluminium foil based insulation				
145	50mm Non-combustible light weight industrial fibre glass Insulation material, with reinforced aluminium foil faced finish laid taut over purlins and fixed concurrent with roof covering, with galvanized steel straining wires at 300mm centres and tied down top and bottom after tensioning with galvanized hoop iron ties.	m²	16		
	CARPENTRY AND JOINERY				
	<b>NOTE</b> : Work Group No 126 for JBCC CPAP purposes				
	ROOFS, ETC				
					lacksquare
	Carried to collection			R	
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	Plate nailed timber roof truss construction				
146	Roof construction to mono pitched roof with no gable ends, 2400mm x 3190mm high overall with 300mm overhang on both sides including trusses at 5 degrees, spaced at minimum 600mm centres to wall plate and to include permanent bracing (wall plates, purlins, etc. elsewhere). The trusses are to be fixed with 2 strands of 8 gauge galvanised wire anchors into wall up to walls to 8 brick courses deep. ( <b>PUMP HOUSE</b> )				
		No	1		
	SUNDRY ROOF TIMBERS:				
	Sawn softwood				
147	38 x 114mm Wall plate.	m	11		
148	50 x 76mm Purlin SA pine purlins spaced as shown at maximum 1200mm centres.	m	13		
140	76 76 0-1 11:				
149	76 x 76mm Splayed purlins.	m	9		
	WOOD PRESERVATIVE:				
150	Two coats creosote on sawn and wrought timbers.	m²	18		
	EAVES, VERGES, ETC				
	Pressed fibre cement				
151	10 x 225mm Fascia and barge board including galvanised steel H-profile jointing strips screwed to rafter ends and 114 x 38mm SA pine cleats	m	16		
	STRUCTURAL STEELWORK				
	<b>NOTE</b> : Work Group No 134 for JBCC CPAP purposes				
	STEEL COLUMNS AND BEAMS				
	Carried to collection			R	
	Bill No. 2 PUMP HOUSE AND REFUSE BAY BID NO.: DOE14NWER015A			K	

	Structural steelwork				
152	$50 \times 50 \times 3$ mm RHS frame bolted to the brick wall inclusive of all bolts	t	0.14		
153	$50 \times 50 \times 3$ mm RHS intermediate frames welded to the perimeter frame	t	0.15		
154	50 x 50 x 3mm galvanised "Weldmesh" installed above RHS beams and wrapped around the perimeter frames	m²	16		
	<u>METALWORK</u>				
	<b>NOTE</b> : Work Group No 136 for JBCC CPAP purposes				
	STEEL SCREENS, GATES, ETC.				
	Steel security gates consisting of 10 x 10mm mild steel bars placed at 100mm centres at 45 degrees angles, screens etc. installed complete including subframes, welded, etc				
155	815 x 2032 mm overall height Robmeg transformer unit door in Grey oxide primer finish with 3 x 100mm heavy duty brass hinges and mild steel louvre (Code: Type AV) in accordance with the manufacturer's recommendations ( <b>Drawing: MCS-PH2-PMH-101</b> )	No	1		
	SECURITY FENCING DETAIL				
	Invisible Wall Fencing System				
156	Anti-cut, anti-climb, anti-theft, high density and high tensile, transparent mesh panel in invisible wall fence 2120mm high with 90 degree top apertures including maintenance-free Everlast coating system and devilfork trim to top of fence	m	32		
	Carried to collection  Bill No. 2  PUMP HOUSE AND REFUSE BAY  BID NO.: DOE14NWER015A			R	

157	4 Strands if galvanized, twisted double strand				
	1.6mm thick wire with 3 barbs incorporated in twist every 150mm fixed to extended post with 2.5mm galvanized binding wire, mechanically strained between straining posts and/or gate and corner posts	m	32		
158	100 x 100mm Square hollow section steel column	No	5		
159	100 x 100mm Square hollow section corner steel	-10			
139	column	No	4		
160	1500mm Wide x 1800mm high overall swing gate including posts, hinges, hasp and staple, etc.	No	1		
	PLASTERING				
	<b>NOTE</b> : Work Group No 142 for JBCC CPAP purposes				
	SCREEDS				
	Screeds on concrete				
161	25mm Thick on floors and landings	m²	25		
	GRANOLITHIC				
	Untinted granolithic finish composed of one part cement, one part fine sand, two parts coarse sand and one part granite that would pass through a 5mm mesh sieve (Colour, pattern and aggregate size to architects approval).				
162	30mm Thick on floors.	m²	25		
	PAINTWORK, ETC TO NEW WORK				
	<b>NOTE</b> : Work Group No 152 for JBCC CPAP purposes				
					$\perp$
	Carried to collection			R	
	Bill No. 2 PUMP HOUSE AND REFUSE BAY BID NO.: DOE14NWER015A				

	FIBRE-CEMENT SURFACES				
	Primer, undercoat and two coats wall and all or equal approved applied strictly to manufacturers detail specifications.				
163	On fascias and barge boards	m²	7		
	ON METAL SURFACES				
	One coat primer, one coat trade undercoat, two coats hogh gloss enamel (exterior) and two coats non-drip enamel (interior)				
164	On door frames	m²	2		
165	On doors	m²	4		
					_
	Carried to collection Bill No. 2			R	-
	PUMP HOUSE AND REFUSE BAY BID NO.: DOE14NWER015A				

Section No. 3			
Bill No. 2			
PUMP HOUSE AND REFUSE BAY			
COLLECTION PAGE			
	Page		Amount
Total Brought Forward from Page No.	<b>No</b> 196		R
Total Brought Forward from Page No.	197		
Total Brought Forward from Page No.	198		
Total Brought Forward from Page No.	199		
Total Brought Forward from Page No.	200		
Total Brought Forward from Page No.	201		
Total Brought Forward from Page No.	202		
Total Brought Forward from Page No.	203		
Total Brought Forward from Page No.	204		
Total Brought Forward from Page No.	205		
Total Brought Forward from Page No.	206		
Total Brought Forward from Page No.	207		
Total Brought Forward from Page No.	208		
Total Brought Forward from Page No.	209		
Cossied Forward to Summers of Section No.		R	
Carried Forward to Summary of Section No.  Bill No. 2		R	
PUMP HOUSE AND REFUSE BAY BID NO.: DOE14NWER015A			

Bill No	SECTION SUMMARY - EXTERNAL WORKS (PROVISIONAL)	Page No		Amount R
1	GENERAL SITEWORKS	195		
2	PUMP HOUSE AND REFUSE BAY	210		
			_	
	Carried to Final Summary BID NO.: DOE14NWER015A		R	

Item No		Quantity	Rate	Amount R
	SECTION NO. 4			
	BILL NO. 1			
	PROVISIONAL AMOUNTS			
	The following provisional sums are for work to be executed by specialists who will be regarded as domestic sub-contractors to the contractor. The contractor shall call for quotations from specialists selected by the Department on documents prepared by the Department or the relevant consultant, in accordance with the Conditions of Contract and in conjunction with the Representative/Agent and the contractor shall in consultation with the relevant consultant adjudicate the tenders. The contractor shall upon the final decision of the Representative/Agent appoint the successful tenderer who shall become a selected domestic sub-contractor to the contractor. Privity of contract shall not be created between the Director-General and the domestic sub-contractor by the method of selection, tender enquiry, adjudication and appointment			
	DEMOLITION OF BUILDINGS WITH ASBESTOS			
1	Allow the sum of R3 200 000.00 (Three Million Two Hundred Thousand Rand) for the demolition of buildings with asbestos	Item		3,200,000.00
2	Add for profit	Item		
3	Allow for attendance	Item		
4	LOOSE FURNITURE AS PER THE DEPARTMENT OF EDUCATION  Allow the sum of R2 000 000.00 (Two Million Rand) for the supply of Loose Furniture	Item		2,000,000.00
	Carried to collection  Bill No. 1 PROVISIONAL SUMS BID NO.: DOE14NWER015A		R	

	Add for profit		Item			
6	Allow for attendance		Item			
	RELOCATION OF AGRICU	LTURAL LAND				
	Allow the sum of R650 000.0 Fifty Thousand Rand) for agricultural land	00 (Six Hundred and the relocation of	Item		650,000.	00
8	Add for profit		Item			
9	Allow for attendance		Item			
		Carried to collection		R		
	Bill No. 1 PROVISIONAL SUMS BID NO.: DOE14NWER015A					

Section	No. 4					l	I	
Bill No.								
	IONAL SUMS							
COLLE	CTION PAGE							
					Page		Amount	
Total B	rought Forward i	from Page No	)		<b>No</b> 212		R	
	ought Forward				213			
						_		
Bill No.		Carried to	Final Sum	nary		R		
	SIONAL SUMS ).: DOE14NWER	.015A						

	FINAL SUMMARY	Dona		<b>A</b>
Section No		Page No		Amount R
1	PRELIMINARIES	44		
2	BUILDERS WORK	177		
3	EXTERNAL WORKS (PROVISIONAL)	211		
4	PROVISIONAL SUMS	214		
	SUB-TOTAL		R	
	PART B: ELECTRICAL INSTALLATIONS (Separate document)	Item		
	PART C: MECHANICAL INSTALLATIONS (Separate document)	Item		
	PART D: WET SERVICES (Separate document)	Item		
	PART E: OCCUPATIONAL HEALTH AND SAFETY (Separate document)	Item		
	SUB-TOTAL		R	
	Allow the sum of R15 000 000(Fifteen Million Rand) for Contract Price Adjustment Provision (CPAP)		R	15,000,000.00
	Allow the sum of R3 806 773.91 (Three Million Eight Hundred and Six Thousand Seven Hundred and Seventy Three Rand and Ninety One Cents) for Contingencies to be expended as directed by the Client			2 206 772 21
			R	3,806,773.91
	SUB-TOTAL excluding Value Added Tax (VAT)		R	
	Value-added Tax		R	
	Carried Forward BID NO.: DOE14NWER015A		R	

	FINAL SUMMARY				
Section No		Page No		Amount R	
	Brought Forward		R		
	Allow Contract Skills Development Goal - 0.5% of the contract sum excluding value added tax		SUM		
	Allow the sum of R240 000.00 (Two Hundred and Forty Thousand Rand) per month for Community Liaison Officer		R	240,000.0	00
	Allow the sum of R180 000.00 (One Hundred and Eighty Thousand Rand) per month for Project Steering Committee		R	180,000.0	00
	SIGNATURE OF TENDERER:				
	TOTAL CARRIED TO FORM OF TENDER BID NO.: DOE14NWER015A		R		=

# PART B:

#### **BILL No.1 - PRELIMINARIES**

Item		UNIT	QTY		R VALUE
no.				RATE	AMOUNT
1,1	Preliminaries and General Compling with insuarance's, statutory contributions, etc. The Contractor shall provide for the delivery and erection within the fenced area, a temporary site office where all drawings and specifications shall be kept. Suitable ablution, water and electricity connections shall be provided by the contractors for their own use, as well as provision of safe and adequate storage space for all material. Adequate signage, first aid and fire fighting facilities shall also be provided. Allow for the removal of such on completion.	Item	1		
1,2	The Contractor shall allow for collection of the project signboard, erect on site and maintain throughout the construction duration. Allow for removal of such upon completion of construction, and return to main Provincial Distribution Centres/Stores. (exclude transport cost - this will be paid separately in terms of the transport rate applicable)	Item	1		
1,3	The Contractor shall supply the project signboard, erect on site and maintain throughout the construction duration. Allow for removal of such upon completion of construction.	Item	1		
1,4	Staff food and accomodation	Item	1		
1,5	Security on site - 24 Hour Armed Security	Item	1		
1,6	Allow for site supervision	Item	1		
1,7	Allow for site security as per works information ( Night Shift Security)	Item	1		
1,8	Site supervisor or site foreman	Item	1		
1,9	Full time SHE officer	Item	1		
1.10	PPE, i.e. hard hat, overalls, safety shoes, safety glasses, dust ask, hand gloves, ear plugs etc.	Item	1		
1,11	Chemical toilets	Item	1		
1,12	Waste management and disposal on site	Item	1		
1,13	Completion and submission of the Expanded Public Works Programme report	Item	1		
1,14	The implementation and maintenance of a Materials Management System for the duration of the contract.	Item	1		
TOTAI	L BILL 1 CARRIED FORWARD TO TENDER SUMMARY				

#### BILL No. 2 - MEDIUM VOLTAGE DISTRIBUTION

		UNIT	QTY	
ITEM	DESCRIPTION			
2,1	Install, connect, test and commission an 11kV T Switch	No	1	
2,2	Supply, deliver, install, connect, test and commission a 500kVA miniature sub-station, c/w the switchgear indicated on the drawing 1011-E-101	No	2	
2,3	Supply and install overheadline with 70mm² SWA conductor 11kV cable complete with 7m wooded poles to Eskom Specification.			
2.3.1	Supply and install 60A,11kV circuit breaker on the pole	No	Rate	
2.3.2	Supply and install 7m pole, stuggard type complete insulators and fittings	No	Rate	
2.3.3	Supply and install FOX cable 35mm2 overhead complete with accessories and fittings	No	Rate	
2.3.4	Install Terminations	No	Rate	
2.3.5	Install joints	No	Rate	
2,4	Supply, deliver, install, connect, test and commission a Metering Kiosk, c/w switchgear & metering equipment complete with CT	No	1	
2,5LI	Supply and install 35mm2 3-core SWA PVC 11kV cable	m	1160	
2,6	Supply and install 35mm2 11kV terminations	No	8	
2,7LI	Dig trench 600mm wide and 1m deep, with 100mm fine sand base and cover, and fill and compact to Aasthto 93	m	580	
2,8	Eskom Upgrade Connection Fee	Sum	1	
TOTA	L BILL CARRIED FORWARD TO TENDER SUMMARY			

#### BILL No.3 - LOW VOLTAGE DISTRIBUTION

Supply, deliver, install and terminate Cu PVC SWA PVC 600/1000V Cable, in trenches, sleeves or on cable trays   Supply and delivery   Installation   Termination, c/w glands, shrouds, lugs and connection   Supply and delivery   Installation   Termination, c/w glands, shrouds, lugs and connection   Supply and delivery   Installation   Termination, c/w glands, shrouds, lugs and connection   Supply and delivery   Installation   Termination, c/w glands, shrouds, lugs and connection   Supply and delivery   Installation   Termination, c/w glands, shrouds, lugs and connection   Supply and delivery   Installation   Insta			UNIT	QTY	TENDE	R VALUE
3.1   Supply, deliver, install and terminate Cu PVC SWA PVC   600/1000V Cable, in trenches, sleeves or on cable trays   150mm² x 4 core   3.1.1.1   150mm² x 4 core   3.1.2.1   120mm² x 4 core   3.1.3.1   12   120mm² x 4 core   3.1.3.1   12   120mm² x 4 core   3.1.3.1   13   12   120mm² x 4 core   3.1.3.1   13   13   13   13   13   13	ITEM	DESCRIPTION	UNII	QIT		
3.1.1 150mm² x 4 core 3.1.1.1 Supply and delivery 3.1.1.2 Installation 3.1.2 120mm² x 4 core 3.1.2.1 Supply and delivery 3.1.2.2 Installation 3.1.2.3 Termination, c/w glands, shrouds, lugs and connection 3.1.3 Supply and delivery 3.1.3.1 Supply and delivery 3.1.3.2 Installation 3.1.3 Somm² x 4 core 3.1.3 Supply and delivery 3.1.3 Supply and delivery 3.1.3 Supply and delivery 3.1.3 Supply and delivery 3.1.3 Supply and delivery 3.1.3 Supply and delivery 3.1.3 Installation 3.1.4 Supply and delivery 3.1.4.1 Supply and delivery 3.1.4.2 Installation 3.1.4.3 Termination, c/w glands, shrouds, lugs and connection 3.1.4 Supply and delivery 3.1.5 Supply and delivery 3.1.6 Supply and delivery 3.1.7 Supply and delivery 3.1.8 Supply and delivery 3.1.8 Supply and delivery 3.1.8 Supply and delivery 3.1.8 Supply and delivery 3.1.8 Supply and delivery 3.1.8 Supply and delivery 3.1.8 Supply and delivery 3.1.8 Supply and delivery 3.1.8 Supply and delivery 3.1.8 Supply and delivery 3.1.8 Supply and delivery 3.1.8 Supply and delivery 3.1.8 Supply and delivery 3.1.8 Supply and delivery 3.1.8 Supply and delivery 3.1.8 Supply and delivery 3.1.8 Supply and delivery 3.1.9 Supply and delivery 3.1.9 Supply and delivery 3.1.9 Supply and delivery 3.1.9 Supply and delivery 3.1.9 Supply and delivery 3.1.9 Supply and delivery 3.1.9 Supply and delivery 3.1.	11 E IVI	DEGGKIF HON			IVAIL	AWIOON
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Tays   Tays			1			
3.1.1   150mm² x 4 core   Supply and delivery   Installation   Supply and delivery   Installation   Supply and delivery   Installation   Supply and delivery   Installation   Supply and delivery   Installation   Supply and delivery   Installation   Supply and delivery   Installation   Supply and delivery   Installation   Supply and delivery   Installation   Supply and delivery   Installation						
3.1.1.1 Supply and delivery Installation Termination, c/w glands, shrouds, lugs and connection No No No No No No No No No No No No No						
Same   Same		150mm² x 4 core				
3.1.1.3 Termination, c/w glands, shrouds, lugs and connection  3.1.2 120mm² x 4 core 3.1.2.1 Supply and delivery 1.3.1.2.2 Installation 3.1.3.3 Somm² x 4 core 3.1.3.1 Supply and delivery 1.3.1.3.2 Installation 3.1.3.3 Termination, c/w glands, shrouds, lugs and connection 3.1.3.3 Somm² x 4 core 3.1.3.1 Supply and delivery 1.3.1.3.2 Installation 3.1.4 Simm² x 4 core 3.1.4.1 Supply and delivery 1.3.1.4.2 Installation 3.1.4.3 Termination, c/w glands, shrouds, lugs and connection 3.1.5 Supply and delivery 1.3.1.5 Supply and delivery 1.3.1.7 Supply and delivery 1.3.1.7 Supply and delivery 1.3.1.7 Supply and delivery 1.3.1.7 Supply and delivery 1.3.1.7 Supply and delivery 1.3.1.7 Supply and delivery 1.3.1.7 Supply and delivery 1.3.1.8 Supply and delivery 1.3.1.8 Supply and delivery 1.3.1.8 Supply and delivery 1.3.1.8 Supply and delivery 1.3.1.8 Supply and delivery 1.3.1.8 Supply and delivery 1.3.1.8 Supply and delivery 1.3.1.8 Supply and delivery 1.3.1.8 Supply and delivery 1.3.1.8 Supply and delivery 1.3.1.8 Supply and delivery 1.3.1.9 Supply and delivery 1.3.1.9 Supply and delivery 1.3.1.9 Supply and delivery 1.3.1.9 Supply and delivery 1.3.1.9 Supply and delivery 1.3.1.9 Supply and delivery 1.3.1.9 Supply and delivery 1.3.1.9 Supply and delivery 1.3.1.9 Supply and delivery 1.3.1.9 Supply and delivery 1.3.1.9 Supply and delivery		1 '' '				-
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Installation   Termination, c/w glands, shrouds, lugs and connection   No			Motor	700		
Termination, c/w glands, shrouds, lugs and connection  Termination, c/w glands, shrouds, lugs and connection  Somm² x 4 core Supply and delivery Installation  3.1.3.3  3.1.4.1  3.1.4.2  3.1.4.2  3.1.4.3  3.1.4.3  Termination, c/w glands, shrouds, lugs and connection  3.1.4.3  3.1.5  2.5mm² x 4 core Supply and delivery Installation  Termination, c/w glands, shrouds, lugs and connection  3.1.5  3.1.5  2.5mm² x 4 core Supply and delivery Installation  Termination, c/w glands, shrouds, lugs and connection  3.1.5  3.1.5  3.1.6  3.1.6  3.1.6  3.1.6.1  3.1.6.2  3.1.6.3  Termination, c/w glands, shrouds, lugs and connection  3.1.6  3.1.7  16mm² x 2 core Supply and delivery Installation  Termination, c/w glands, shrouds, lugs and connection  3.1.7  16mm² x 4 core Supply and delivery Installation  Termination, c/w glands, shrouds, lugs and connection  3.1.7  3.1.7.1  3.1.7.1  3.1.7.2  3.1.7.3  Termination, c/w glands, shrouds, lugs and connection  3.1.8  3.1.8  3.1.8  3.1.8  3.1.9  3.1.8  3.1.9  3.1.9  10mm² x 2 core  Supply and delivery Installation  Termination, c/w glands, shrouds, lugs and connection  Termination, c/w glands, shrouds, lugs and connection  Termination, c/w glands, shrouds, lugs and connection  No  28  3.1.9  10mm² x 2 core Supply and delivery Installation  Termination, c/w glands, shrouds, lugs and connection  Termination, c/w glands, shrouds, lugs and c		* * *				
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Installation   Termination, c/w glands, shrouds, lugs and connection   Supply and delivery   Supply and deli	3.1.3.1		Meter	Rate		Rate Only
3.1.3.3 Termination, c/w glands, shrouds, lugs and connection 3.1.4 35mm² x 4 core 3.1.4.1 Supply and delivery 3.1.4.2 Installation 3.1.5 25mm² x 4 core 3.1.5.1 Supply and delivery 1.1.5.2 Installation 3.1.6.3 Termination, c/w glands, shrouds, lugs and connection 3.1.6.4 Supply and delivery 1.1.6.5 Installation 3.1.6.7 Termination, c/w glands, shrouds, lugs and connection 3.1.6.1 Supply and delivery 1.1.6.2 Installation 3.1.6.3 Termination, c/w glands, shrouds, lugs and connection 3.1.6.3 Termination, c/w glands, shrouds, lugs and connection 3.1.7 Termination, c/w glands, shrouds, lugs and connection 3.1.7 Termination, c/w glands, shrouds, lugs and connection 3.1.8 Supply and delivery 1.1.7 Installation 3.1.8 Supply and delivery 1.1.8 Supply and delivery 1.1.9 Supply and delivery 1.1.0 Supply and delivery 1.1.0 Supply and delivery 1.1.0 S	3.1.3.2	1 '' '				Rate Only
3.1.4 35mm² x 4 core 3.1.4.1 Supply and delivery Installation 3.1.4.2 Installation 3.1.5 25mm² x 4 core 3.1.5.1 Supply and delivery Installation 3.1.5.2 Installation 3.1.6 3.1.6.3 Termination, c/w glands, shrouds, lugs and connection 3.1.6 Supply and delivery 3.1.6.1 Fermination, c/w glands, shrouds, lugs and connection 3.1.6 Supply and delivery 3.1.6.1 Supply and delivery 3.1.6.2 Installation 3.1.7 Installation 3.1.7 Installation 3.1.7 Installation 3.1.7 Supply and delivery 3.1.7.3 Termination, c/w glands, shrouds, lugs and connection 3.1.8 Supply and delivery 3.1.7.2 Installation 3.1.8 Supply and delivery 3.1.8.1 Termination, c/w glands, shrouds, lugs and connection 3.1.8 Supply and delivery 3.1.8.1 Termination, c/w glands, shrouds, lugs and connection 3.1.8 Supply and delivery 3.1.8.1 Termination, c/w glands, shrouds, lugs and connection 3.1.8 Supply and delivery 3.1.8.1 Termination, c/w glands, shrouds, lugs and connection 3.1.9 Installation 3.1.0 Installation 3.1.0 Installation 3.1.0 Installation 3.1.0 Installation 3.1	3.1.3.3					Rate Only
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3.1.4.2 Installation 3.1.4.3 Termination, c/w glands, shrouds, lugs and connection 3.1.5 25mm² x 4 core 3.1.5.1 Supply and delivery 3.1.5.2 Installation 3.1.6 25mm² x 2 core 3.1.6.1 Supply and delivery 3.1.6.2 Installation 3.1.6.3 Termination, c/w glands, shrouds, lugs and connection 3.1.6.3 Termination, c/w glands, shrouds, lugs and connection 3.1.7 16mm² x 4 core 3.1.7.1 Supply and delivery 3.1.7.2 Installation 3.1.7.3 Termination, c/w glands, shrouds, lugs and connection 3.1.8 16mm² x 2 core 3.1.8.1 Supply and delivery 3.1.8.2 Supply and delivery 3.1.8.3 Termination, c/w glands, shrouds, lugs and connection 3.1.8 16mm² x 2 core 3.1.8.1 Supply and delivery 3.1.8.2 Supply and delivery 3.1.8.3 Termination, c/w glands, shrouds, lugs and connection 3.1.9 10mm² x 2 core 3.1.9.1 Supply and delivery 3.1.9.2 Supply and delivery 3.1.9.1 Supply and delivery 3.1.9.2 Installation 3.1.9 Termination, c/w glands, shrouds, lugs and connection 3.1.0 Termination, c/w glands, shrouds, lugs and connection 3.1.0 Termination, c/w glands, shrouds, lugs and connection 3.1.0 Termination, c/w glands, shrouds, lugs and connection 3.1.0 Termination, c/w glands, shrouds, lugs and connection 3.1.0 Termination, c/w glands, shrouds, lugs and connection 3.1.0 Termination, c/w	3.1.4	35mm <sup>2</sup> x 4 core				
3.1.4.3 Termination, c/w glands, shrouds, lugs and connection  3.1.5 25mm² x 4 core 3.1.5.1 Supply and delivery Installation 3.1.5.2 Termination, c/w glands, shrouds, lugs and connection 3.1.5.3 Termination, c/w glands, shrouds, lugs and connection 3.1.6 25mm² x 2 core 3.1.6.1 Supply and delivery Installation 3.1.6 25mm² x 2 core 3.1.6.2 Installation 3.1.6 3.1.7 Termination, c/w glands, shrouds, lugs and connection 3.1.7 Supply and delivery Installation 3.1.7 Termination, c/w glands, shrouds, lugs and connection 3.1.7 Termination, c/w glands, shrouds, lugs and connection 3.1.8 16mm² x 2 core 3.1.8.1 Supply and delivery Installation 3.1.8 16mm² x 2 core 3.1.8.1 Termination, c/w glands, shrouds, lugs and connection 3.1.8 16mm² x 2 core 3.1.8.1 Termination, c/w glands, shrouds, lugs and connection 3.1.8 10mm² x 2 core 3.1.8 10mm² x 2 core 3.1.9 10mm² x 2 core	3.1.4.1	Supply and delivery	Meter	Rate		Rate Only
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Installation   Termination, c/w glands, shrouds, lugs and connection   No   80			Meter	1000		
3.1.5.3 Termination, c/w glands, shrouds, lugs and connection  3.1.6 25mm² x 2 core 3.1.6.1 Supply and delivery Installation 3.1.7 16mm² x 4 core 3.1.7.1 Supply and delivery Installation 3.1.7.2 Installation 3.1.7.3 Termination, c/w glands, shrouds, lugs and connection 3.1.8 16mm² x 2 core 3.1.8.1 Supply and delivery Installation 3.1.8.2 Installation 3.1.8.3 Termination, c/w glands, shrouds, lugs and connection 3.1.9 10mm² x 2 core Supply and delivery Installation Termination, c/w glands, shrouds, lugs and connection 3.1.9 10mm² x 2 core Supply and delivery Installation Termination, c/w glands, shrouds, lugs and connection 3.1.9 10mm² x 2 core Supply and delivery Installation Termination, c/w glands, shrouds, lugs and connection						
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3.1.6.2 Installation 3.1.6.3 Termination, c/w glands, shrouds, lugs and connection  3.1.7 16mm² x 4 core 3.1.7.1 Supply and delivery Installation 3.1.7.2 Installation 3.1.8 16mm² x 2 core 3.1.8.1 Supply and delivery Installation 3.1.8.2 Installation 3.1.8.3 Termination, c/w glands, shrouds, lugs and connection 3.1.8.3 Termination, c/w glands, shrouds, lugs and connection 3.1.8.1 Supply and delivery Installation Termination, c/w glands, shrouds, lugs and connection 3.1.8.2 Installation Termination, c/w glands, shrouds, lugs and connection 3.1.8.3 Termination, c/w glands, shrouds, lugs and connection 3.1.9 10mm² x 2 core 3.1.9.1 Supply and delivery Installation Termination, c/w glands, shrouds, lugs and connection			Meter	650		
3.1.6.3 Termination, c/w glands, shrouds, lugs and connection  3.1.7 16mm² x 4 core 3.1.7.1 Supply and delivery 3.1.7.2 Installation 3.1.8 16mm² x 2 core 3.1.8.1 Supply and delivery 3.1.8.2 Installation 3.1.8.3 Termination, c/w glands, shrouds, lugs and connection 3.1.8.3 Termination, c/w glands, shrouds, lugs and connection 3.1.8.1 Supply and delivery 3.1.8.2 Installation 3.1.8.3 Termination, c/w glands, shrouds, lugs and connection 3.1.9 10mm² x 2 core 3.1.9.1 Supply and delivery 3.1.9.2 Installation 3.1.9.3 Termination, c/w glands, shrouds, lugs and connection 3.1.9.3 Termination, c/w glands, shrouds, lugs and connection 3.1.9 No 4		* * * *				
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3.1.7.1 Supply and delivery  Installation Termination, c/w glands, shrouds, lugs and connection  1.1.8.1 Supply and delivery  3.1.8.2 Installation Termination, c/w glands, shrouds, lugs and connection  1.1.8.3 Termination, c/w glands, shrouds, lugs and connection  1.1.9 Supply and delivery  1.1.9.1 Supply and delivery  1.1.9.2 Supply and delivery  1.1.9.2 Termination, c/w glands, shrouds, lugs and connection  1.1.9 Supply and delivery  1.1.9.2 Supply and delivery  1.1.9.3 Termination, c/w glands, shrouds, lugs and connection  1.1.9 Supply and delivery  1.		Terrimation, 6, w giarrae, erriedae, rage and cermicotter	''	10		
3.1.7.2 Installation 3.1.7.3 Installation Termination, c/w glands, shrouds, lugs and connection  3.1.8 16mm² x 2 core 3.1.8.1 Supply and delivery 3.1.8.2 Installation Termination, c/w glands, shrouds, lugs and connection  3.1.9 10mm² x 2 core 3.1.9.1 Supply and delivery 3.1.9.2 Installation Termination, c/w glands, shrouds, lugs and connection  Meter Meter A0 Meter 40 Meter 40 Meter 40 Meter 40 Meter 40 Termination, c/w glands, shrouds, lugs and connection  Termination, c/w glands, shrouds, lugs and connection	3.1.7	16mm² x 4 core				
3.1.7.3 Termination, c/w glands, shrouds, lugs and connection  3.1.8 3.1.8.1 Supply and delivery Installation 3.1.8.3 Termination, c/w glands, shrouds, lugs and connection  Termination, c/w glands, shrouds, lugs and connection  3.1.9 3.1.9.1 Supply and delivery Installation 3.1.9.2 Installation Termination, c/w glands, shrouds, lugs and connection  Meter 40 Met	3.1.7.1	Supply and delivery	Meter	950		
3.1.8 16mm² x 2 core 3.1.8.1 Supply and delivery 3.1.8.2 Installation Termination, c/w glands, shrouds, lugs and connection  3.1.9 10mm² x 2 core 3.1.9.1 Supply and delivery 3.1.9.2 Installation Termination, c/w glands, shrouds, lugs and connection  Meter No 28  Meter 40 Meter 40 Meter 40 Installation Termination, c/w glands, shrouds, lugs and connection  Termination, c/w glands, shrouds, lugs and connection	3.1.7.2	Installation	Meter	950		
3.1.8.1 Supply and delivery 3.1.8.2 Installation 3.1.8.3 Termination, c/w glands, shrouds, lugs and connection  Termination, c/w glands, shrouds, lugs and connection  10mm² x 2 core 3.1.9.1 Supply and delivery 3.1.9.2 Installation Termination, c/w glands, shrouds, lugs and connection  Meter No 28  Meter No 28  Meter 40  Meter 40  Meter 40  Meter 40  Meter 40  Meter 40  No 4	3.1.7.3	Termination, c/w glands, shrouds, lugs and connection	No	80		
3.1.8.1 Supply and delivery 3.1.8.2 Installation 3.1.8.3 Termination, c/w glands, shrouds, lugs and connection  Termination, c/w glands, shrouds, lugs and connection  10mm² x 2 core 3.1.9.1 Supply and delivery 3.1.9.2 Installation Termination, c/w glands, shrouds, lugs and connection  Meter No 28  Meter No 28  Meter 40  Meter 40  Meter 40  Meter 40  Meter 40  Meter 40  No 4	3.1.8	16mm² x 2 core				
3.1.8.2 Installation 3.1.8.3 Installation Termination, c/w glands, shrouds, lugs and connection  3.1.9 10mm² x 2 core 3.1.9.1 Supply and delivery 3.1.9.2 Installation Termination, c/w glands, shrouds, lugs and connection  Meter No 28  Meter 40  Meter 40  Meter 40  No 4			Meter	350		
3.1.8.3 Termination, c/w glands, shrouds, lugs and connection  3.1.9   3.1.9.1 Supply and delivery  3.1.9.2 Installation  Termination, c/w glands, shrouds, lugs and connection  No   28   Meter   40   Meter   40   Meter   40   No   4		1 '' '				
3.1.9 10mm² x 2 core 3.1.9.1 Supply and delivery 3.1.9.2 Installation Termination, c/w glands, shrouds, lugs and connection  No  10mm² x 2 core Meter 40 Meter 40 No 4						
3.1.9.1 Supply and delivery 3.1.9.2 Installation Termination, c/w glands, shrouds, lugs and connection  Meter 40 40 40 40 40 40		, 3 , 11, 1 1111, 1 <b>19</b>		-		
3.1.9.2 Installation 3.1.9.3 Termination, c/w glands, shrouds, lugs and connection No 4		10mm² x 2 core				
3.1.9.3 Termination, c/w glands, shrouds, lugs and connection No 4						
				40		
SUB-TOTAL FOR THIS PAGE CARRIED FORWARD	3.1.9.3	Termination, c/w glands, shrouds, lugs and connection	No	4		
SUB-TOTAL FOR THIS PAGE CARRIED FORWARD						
	SUB-TO	TAL FOR THIS PAGE CARRIED FORWARD			1	

#### BILL No.20 - LOW VOLTAGE DISTRIBUTION

		UNIT	QTY	TENDE	R VALUE
ITEM	DESCRIPTION			RATE	AMOUNT
CUD TO	TAL FROM RREVIOUS RACE				
SUB-TC	TAL FROM PREVIOUS PAGE				
3.1.9	6mm² x 2 core				
3.1.9.1	Supply and delivery	Meter	400		
3.1.9.2	Installation	Meter	400		
3.1.9.3	Termination, c/w glands, shrouds, lugs and connection	No	20		
3.1.12	4mm² x 2 core				
3.1.12.1	Supply and delivery	Meter	Rate		Rate Only
3.1.12.2	Installation	Meter	Rate		Rate Only
3.1.12.3	Termination, c/w glands, shrouds, lugs and connection	No	Rate		Rate Only
3.1.13	2,5mm² x 2 core				
3.1.13.1	Supply and delivery	Meter	Rate		Rate Only
3.1.13.2	Installation	Meter	Rate		Rate Only
3.1.13.3	Termination, c/w glands, shrouds, lugs and connection	No	Rate		Rate Only
	Termination, ow glands, shrouds, lugs and connection	110	rate		rtato omy
3.2	Supply, install and terminate Earth Continuity Conductor				
	fixed to cables with cable ties spaced at 750mm:				
3.2.1	90mm²	Meter	Rate		Rate Only
3.2.2	70mm <sup>2</sup>	Meter	700		,
3.2.3	25mm <sup>2</sup>	Meter	Rate		Rate Only
3.2.4	16mm²	Meter	1500		
3.2.5	10mm²	Meter	13500		
3.2.6	6mm²	Meter	40		
3.2.7	4mm²	Meter	300		
2.2					
3,3	Supply, deliver, install, connect, test and commission				
	floor standing weather resistant external kiosks, c/w all				
	switchgear and circuit breakers indicated on the				
	<u>drawings (1011-E-101)</u>				
3.3.1	Kiosk A	No	1		
3.3.2	Kiosk B	No	1		
3.3.3	Kiosk C	No	1		
3.3.4	Kiosk D	No	1		
3.3.5	Kiosk E	No	1		
3.3.6	External metering kiosk	No	1		
3,4	CABLE MANHOLES				
	Supply, deliver and fully install cable manholes including	.			
	all accessories as per drawings and specification				
3.4.1	Cable Manhole with 600x600mm cover	No	22		
TOTAL	BILL CARRIED FORWARD TO TENDER SUMMARY				

#### BILL No.4 - EXTERNAL LIGHTING INSTALLATION

		UNIT	QTY	TENDE	R VALUE
ITEM	DESCRIPTION			RATE	AMOUNT
4,1	Supply, Deliver and installation Cu PVC SWA PVC 600/1000V Cable, installed in trenches or sleeves				
4.1.1 4.1.1.1	4mm² x 3 core Supply and Delivery	Meter	1200		
4.1.1.2LI	Installation	Meter	1200		
4.1.1.3	Termination, c/w glands, shrouds, lugs and connection	No	8		
4,2	Supply, install and terminate Earth Continuity Conductor fixed to cables with cable ties spaced at 750mm:				
4.2.1 4.2.1.1Ll	2.5mm² Supply and Delivery	Meter	1200		
4.2.1.2	Installation and Termination	Meter	1200		
4,3 4.3.1	Supply, install, connect, test and commission of external light fittings Pole mounted luminaire with 4x50W LED Floodlight	No	49		
4.3.2	lamp c/w 8m mounting height galanised steel pole with access cover Replace existing floodlight on existing poles with 4 x 50W LED floodlights	No	12		
4,4 4.4.1	Supply, install & seal watertight junction boxes c/w o-rings, glands etc.  3 way, equal to CCG or Pratley	No	15		
4,5 4.5.1	Supply, install, connect, test and commission of external light fittings for covered walkway. Light fitting installed every 5 meters 380x180mm Surface mounted 13W LED light fitting, with LM6 die cast aluminium housing and UV stabilised	No	270		
4,6	high impact opal acrylic difuser. IP65  Supply, install, connect, test and commission of external				
4.6.1	light fittings for covered carports TYPE F02 - 1200mm, 30W surface mounted LED vapor proof light fitting with self-extinguishing polycarbonate body, IP65	No	32		
4,7 4.7.1	Supply, install, connect, test and commission of external light fittings for refuse bin blocks  TYPE W1 - Wall mounted bulkhead LED light fitting with LM6 die cast and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp		3		
TOTAL	BILL CARRIED FORWARD TO TENDER SUMMARY				

BILL NO. 01	
BLOCK 6 - TYPE 1 HOSTEL	

BLOCK 6 - TYPE 1A HOSTEL SUBJECT : BILL OF QUANTITIES

### BILL No.10.1 - DISTRIBUTION BOARDS

		UNIT	QTY	TENDE	R VALUE
ITEM	DESCRIPTION  Supply leaded and complete Sub-distribution heards and complete Sub-distribution heards are forced as a supply supp			RATE	AMOUNT
	Supply, Install, test and commision Sub-distribution boards - surface mounted distribution board cupboards, c/w all switchgear and breakers indicated on the				
	drawings				
10.1.1	DB6	No	1		
10.1.2	Lable all circuits and install signage to the panels	sum	1		
10.1.3	Certificate of Compliance	sum	1		
TOTAL	FOR BILL CARRIED FORWARD TO SUMMARY				

# BLOCK 6 - TYPE 1A HOSTEL SUBJECT : BILL OF QUANTITIES

# **BILL No.10.2 - LIGHTING INSTALLATION**

		UNIT	QTY		R VALUE
ITEM	DESCRIPTION			RATE	AMOUNT
	WIREWAYS				
	Supply and Install Trunking				
10.2.1	Supply and Install Trunking Supply and install P8300 trunking suspended from slab and trusses in ceiling void.				
10.2.1	Supply and delivery	Meter	120		
10.2.1.1	Installation	Meter	120		
10.2.1.2		Meter	120		
	Supply, delivery and installation of PVC conduits, surface mounted in ceiling voids and				
	fixed to walls or cast-in or built into walls, including all fixing materials, bends,				
	terminations, draw boxes, etc.				
10.2.2	20mm diameter				
10.2.2.1	Supply and delivery	Meter	200		
10.2.2.2	Installation	Meter	200		
	Supply, delivery and installation of Conduit outlets boxes c/w locknuts and bushes built				
	into brick or cast into concrete or surface mounted				
10.2.3	100 x 50 x 50 mm				
10.2.3.1	Supply and delivery	No	18		
10.2.3.2	Installation	No	18		
10.2.4	65mm round box				
	Supply and delivery	No	28		
10.2.4.2	Installation	No	28		
	ACCESSORIES				
40.05					
10.2.5 10.2.5.1	Supply and Install accessories to boxes	NI-	40		
	5A, 3-pin socket outlets to trunking	No	10		
10.2.5.2	16Amp one lever one way light switch	No	16 2		
	16Amp one lever two way light switch 16Amp two lever one way light switch	No	∠ Rate		Rate Only
10.2.5.4	16Amp two lever two way light switch	No No	Rate		Rate Only
10.2.5.6	Photocell	No	1		reace Only
10.2.5.7	Ceiling mounted occupancy sensor	No	6		
	Soming mounted occupancy consor	110	Ü		
	WIRING AND TERMINALS				
10.2.6	Supply, Deliver and installation of Cu Conductors:				
10.2.6.1	4mm² PVC insulated conductor				
	Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
10.2.6.2	2,5mm² PVC insulated conductor				
	Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
10.2.6.3	2,5mm² Heat resistant conductor		Б.		Data Cala
	Supply and delivery	Meter	Rate		Rate Only
10.2.6.4	Installation 2,5mm² bare copper earth wire	Meter	Rate		Rate Only
10.2.0.4	Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
10 2 6 5	1.5mm² surfix twin and earth	Meter	Nate		ixate Offig
10.2.0.0	Supply and delivery	Meter	230		
	Installation	Meter	230		
0115 =	TALL FOR THIS PLOT CARRIED FORWARD	L!		<u> </u>	
SUB-TO	OTAL FOR THIS PAGE CARRIED FORWARD				

BILL No.10.2 - LIGHTING INSTALLATION

ITEM	DESCRIPTION	UNIT	QTY	TENDEI RATE	R VALUE AMOUNT
	OTAL FROM PREVIOUS PAGE				
	LIGHT FITTINGS				
10.2.7	Supply, deliver, install, connect, test and commissioning the following light fittings				
10.2.7.1	TYPE F01 - 1200mm, 20W surface mounted LED batten light fitting with rolled mild steel body and a white epoxy powder coated finish	No	2		
10.2.7.2	TYPE C1 - 83mm diameter LED downlight ceiling recessed Die-cast aluminium body with acrylic lens(8w cool white)	No	30		
10.2.7.3	TYPE F02 - 1200mm, 30W surface mounted LED vapor proof light fitting with self-extinguishing polycarbonate body	No	12		
10.2.7.4	TYPE P1 - 127mm diameter ,21W Adjustable-angle LED downlight fitting with die-cast aluminium bod	No	10		
10.2.7.5	TYPE P2 - Ceiling mounted LED light fitting with LM6 die cast and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp - Emergency type with backup power	No	4		
10.2.7.6	TYPE W1 - Wall mounted bulkhead LED light fitting with LM6 die cast and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp	No	4		
10.2.7.7	TYPE D1 - 83mm diameter LED downlight ceiling recessed Die-cast aluminium body with acrylic lens, 6W warm white	No	8		
-	BILL CARRIED FORWARD TO TENDER SUMMARY				
	CT : BILL OF QUANTITIES				

# **BILL No.10.3: SMALL POWER INSTALLATION**

		UNIT	QTY	TENDE	R VALUE
ITEM	DESCRIPTION			RATE	AMOUNT
	WIREWAYS				
	WIREWAIS				
	Supply, delivery and installation of PVC conduits, surface mounted in ceiling voids and				
	fixed to walls or cast-in or built into walls, including all fixing materials, bends,				
	terminations, draw boxes, etc.				
10.3.1	20mm diameter		000		
10.3.1.1 10.3.1.2	Supply and delivery Installation	Meter Meter	220 220		
10.5.1.2	Installation	weter	220		
10.3.2	Supply and install conduit droppers chased or built into wall, consisting of 3 x 25mm				
	dia & 2 x 20mm dia from wire basket & trunking in ceiling void to power skirting c/w				
	1.6mm draw wires	No	25		
	Supply, delivery and installation of Conduit outlets boxes c/w locknuts and bushes built				
40.00	into brick or cast into concrete or surface mounted, c/w applicable cover				
10.3.3 10.3.3.1	100 x 100 x 50 mm	No	25		
10.3.3.1	Supply and delivery Installation	No No	25 25		
.0.0.0.2	Histaliation	140	20		
	ACCESSORIES				
	Supply, delivery and installation of socket outlets				
10.3.4 10.3.4.1	16 A, 3-pin standard white SSO plus triple slimline 16A type 164-2	NIa	20		
10.3.4.1	Flush Mounted in wall box Mounted in floorbox	No No	20 Rate		Rate Only
10.3.4.3	Surface mounted	No	Rate		Rate Only
10.3.4.4	Power skirting mounted	No	Rate		Rate Only
	· ·				
10.3.5	16 A, 3-pin double white SSO				
10.3.5.1	Flush Mounted	No	Rate		Rate Only
10.3.5.2	Surface mounted	No	Rate		Rate Only
10.3.6	16 A, 3-pin dedicated red SSO				
10.3.6.1	Flush Mounted in 100 X 100 (HVAC)	No	Rate		Rate Only
		No	Rate		Rate Only
10.3.6.3	Power skirting mounted, 45 degree (including plug top)	No	Rate		Rate Only
	WIRING AND TERMINALS				
	WINING AND TENNINAES				
10.3.7	Supply, Deliver and installation of Cu Conductors:				
10.3.7.1	2.5mm² PVC insulated conductor				
	Supply and delivery	Meter Meter			
10.3.7.2	Installation 4mm² PVC insulated conductor	weter	250		
	Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
10.3.7.3	4mm <sup>2</sup> 4 core Surfix (For HVAC)				
	Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
10.3.7.4	2.5mm² PVC insulated earth	Motor	Doto		Boto Only
	Supply and delivery Installation	Meter Meter	Rate Rate		Rate Only Rate Only
10.3.7.5	2.5mm² bare copper earth wire	Wictor	rtate		reace Offiny
	Supply and delivery	Meter	125		
	Installation	Meter	125		
TOTAL	DILL CADDIED EODWADD TO TENDED CHMMARY				
IOIAL	BILL CARRIED FORWARD TO TENDER SUMMARY				

BLOCK 6 - TYPE 1A HOSTEL SUBJECT : BILL OF QUANTITIES

ITEM	DESCRIPTION	TENDER
I I LIVI	DESCRIPTION	AMOUNT
1	BILL No.10.1 - DISTRIBUTION BOARDS	
2	BILL No.10.2 - LIGHTING INSTALLATION	
3	BILL No.10.3: SMALL POWER INSTALLATION	
4	TOTAL	

NO. 02	YPE 2A HOSTEL		
BILL N	BLOCK 7 - TYPE		

BLOCK 7 - TYPE 2A HOSTEL SUBJECT : BILL OF QUANTITIES

# BILL No.11.1 - DISTRIBUTION BOARDS

ITERA	DESCRIPTION	UNIT	QTY	TENDE	R VALUE
ITEM	DESCRIPTION Supply, Install, test and commision Sub-distribution boards - surface mounted			RATE	AMOUNT
	distribution board cupboards, c/w all switchgear and breakers indicated on the				
	drawings				
11.1.1	DB-7	No	1		
11.1.2	Lable all circuits and install signage to the panels	sum	1		
11.1.3	Certificate of Compliance	sum	1		
ΤΟΤΔΙ	BILL CARRIED FORWARD TO TENDER SUMMARY				

Moedwil Combined School- 11 - Block 7 - Type 2A Hostel

**BLOCK 7 - TYPE 2A HOSTEL** 

# **BILL No.11.2 - LIGHTING INSTALLATION**

WIREWAYS   Supply and Install Trunking   Supply and Install B300 trunking suspended from slab and trusses in ceiling void.   Supply and delivery   Suppl			UNIT	QTY	TENDE	R VALUE
Supply and install PS300 trunking suspended from slab and trusses in ceiling void. Supply and install PS300 trunking suspended from slab and trusses in ceiling void. Supply and delivery Installation Supply delivery and installation of PVC conduits, surface mounted in ceiling voids and literal to walls or cash in or built into walls, including all fixing materials, Bends.  Zomm diameter Zomm diameter Supply and delivery Installation Supply and delivery Installation Supply and delivery Installation Supply and delivery Installation Supply and delivery Supply and delivery Supply and delivery Supply and delivery Supply and delivery Supply and delivery Supply and delivery Supply and delivery Supply and install accessories to boxes Supply and install accessories to boxes Supply and install accessories to boxes Supply and install accessories to boxes Supply and install accessories to boxes Supply and install accessories to boxes Supply and install accessories to boxes Supply and install accessories to boxes Supply and installation ACCESSORIES Supply and installation ACCESSORIES Supply and installation ACCESSORIES Supply and installation Supply and delivery Supply and delivery Supply and delivery Supply and delivery Supply and delivery Supply and delivery Installation Meter Supply and delivery	ITEM				RATE	AMOUNT
Supply and install P8300 trunking suspended from slab and trusses in ceiling void.   Meter   150   Meter   151   Supply, delivery and installation of PVC conduits, surface mounted in ceiling voids and   fixed to walls or cast-in or built into walls, including all fixing materials, bends.   The property of the prope		WIREWAYS				
Supply and install P8300 trunking suspended from slab and trusses in ceiling void.   Meter   150   Meter   151   Supply, delivery and installation of PVC conduits, surface mounted in ceiling voids and   fixed to walls or cast-in or built into walls, including all fixing materials, bends.   The property of the prope		Supply and Install Trunking				
Supply, delivery and installation of PVC conduits, surface mounted in ceiling voids and fixed to walks or cast-in or built into walks, including all fixing materials, bends.  Supply, delivery and installation of PVC conduits, surface mounted in ceiling voids and fixed to walks or cast-in or built into walks, including all fixing materials, bends.  20m diameter  20m diameter  20m diameter  200 Installation  Supply and delivery and installation of Conduit outlets boxes c/w locknuts and bushes built into brick or cast into concrete or surface mounted  10 x 50 x 50 mm  10 x 50 x 50 mm  10 x 50 x 50 mm  10 x 50 x 50 mm  11.2.1 (Supply and delivery)  10 x 50 x 50 mm  11.2.2 (Supply and delivery)  10 x 50 x 50 mm  11.2.3 (Supply and delivery)  10 x 50 x 50 mm  11.2.5 (As price on the concrete or surface mounted  10 x 50 x 50 mm  10 x	11.2.1					
Supply, delivery and installation of PVC conduits, surface mounted in ceiling voids and fixed to walls or cast-in or built into wells, including all fixing materials, bends.  ### Installation of PVC conduits, surface mounted in ceiling voids and fixed to walls or cast-in or built into wells, including all fixing materials, bends.  #### Employed and delivery    12-22	11.2.1.1		Meter	150		
timed to valls or cast-in or built into walls, including all fixing materials, bends.  Iteminations, draw boxes, etc.  200 Meter  20	11.2.1.2					
timed to valls or cast-in or built into walls, including all fixing materials, bends.  Iteminations, draw boxes, etc.  200 Meter  20						
terminations, draw boxes, etc.  200 Meter  Supply and delivery  11.22.2 Installation  Supply and installation of Conduit outlets boxes c/w locknuts and bushes built into brick or cast into concrete or surface mounted  11.23.1 10.0 50.5 50 mm  11.23.2 Installation  Supply and delivery  11.24.5 Supply and delivery  11.24.5 Supply and delivery  11.24.6 Supply and delivery  11.24.1 Supply and delivery  11.24.1 Supply and delivery  11.24.2 Supply and installation  ACCESSORIES  11.25.1 SA, 3-ph socket outlets to trunking  11.25.3 Supply and installation of Conduit outlets boxes  11.25.5 SA, 3-ph socket outlets to trunking  11.25.6 Supply and installation of Conduit outlets boxes  11.25.6 Supply and installation of Conduit outlets boxes c/w locknuts and bushes built into brick or cast into concrete or surface mounted of Conduit outlets boxes c/w locknuts and bushes built into brick or cast into concrete or surface mounted of Conduit outlets boxes c/w locknuts and bushes built into brick or cast into concrete or surface mounted on Conduit on No 30  ACCESSORIES  11.25.5 Supply and installation of Conduit or Supply and conduit or way light switch  11.25.6 Supply not lever two way light switch  11.25.7 Supply not lever two way light switch  11.25.8 Supply Deliver and installation of Cu Conduitors:  WRING AND TERMINALS  Supply and delivery  WING AND TERMINALS  Supply and delivery  Meter Rate Rate Rate  Rate  Rate  Rate  Supply and delivery  Meter Rate Rate  Rate  Rate  Supply and delivery  Meter Rate  Rate  Rate  Supply and delivery  Installation  Meter Rate  Rate  Rate  Supply and delivery  Installation  Meter Rate  Rate  Rate  Supply and delivery  Installation  Meter Rate  Rate  Rate  Supply and delivery  Installation  Meter Rate  Rate  Rate  Supply and delivery  Installation  Meter Rate  Rate  Rate  Supply and delivery  Installation  Meter Rate  Rate  Rate  Rate  Rate  Rate  Rate  Supply and delivery  Meter Rate  Rate  Rate  Rate  Rate  Rate  Rate  Rate  Rate  Rate  Rate  Rate  Rate  Rate  Rate  Rate  Rate  Supply and d						
20mm diameter   200   Meter   200						
Supply and delivery Installation of Conduit outlets boxes o'w locknuts and bushes built into brick or cast into concrete or surface mounted  Supply and delivery and installation of Conduit outlets boxes o'w locknuts and bushes built into brick or cast into concrete or surface mounted  Supply and to 50 x 50 mm  Supply and delivery  Supply and delivery  Supply and delivery  Supply and delivery  Supply and latella accessories to boxes  Supply and Install accessories to boxes  Supply and Install accessories to boxes  Supply and Install accessories to boxes  Supply and Install accessories to boxes  Supply and Install accessories to boxes  Supply and Install accessories to boxes  Supply and Install accessories to boxes  Supply and Install accessories to boxes  Supply and Install accessories to boxes  Supply and Install accessories to boxes  Supply and Install accessories to boxes  Supply and Installation  No 61  11.25.1  16Amp one lever two way light switch  No 8ate Rate Rate  Rate	44.0.0					
Installation  Supply, delivery and installation of Conduit outlets boxes o'w locknuts and bushes built into pictic or cast into concrete or surface mounted 100 x 50 x 50 mm			Motor	200		
Supply, delivery and installation of Conduit outlets boxes c/w locknuts and bushes built into brick or cast into concrete or surface mounted 10x 50 x 50 mm  11.23.1   Installation   No 20   Installation or No 20   Installation   No 30   Installation   Installation   No 30   Installation		, , ,				
11.2.31   10.1 brick or cast into concrete or surface mounted   11.2.31   12.32   13		mstallation	Meter	200		
11.2.31   10.1 brick or cast into concrete or surface mounted   11.2.31   12.32   13		Supply, delivery and installation of Conduit outlets boxes c/w locknuts and bushes built				
11.2.31   Supply and delivery   No						
Installation	11.2.3	100 x 50 x 50 mm				
15.24   Supply and delivery   No   30   30   30   30   30   30   30   3	11.2.3.1		No	20		
Supply and delivery Installation			No	20		
ACCESSORIES  Supply and Install accessories to boxes 5A, 3-pin socket outlets to trunking No 10 11.25.1 12.5.1 12.5.1 12.5.1 12.5.1 12.5.2 12.5.1 12.5.2 12.5.1 12.5.2 12.5.2 12.5.2 12.5.3 12.			١	0.0		
ACCESSORIES  Supply and Install accessories to boxes  11.25.1  11.25.2  16Amp one lever two way light switch 11.25.3  16Amp two lever one way light switch 11.25.6  11.25.6  11.25.7  11.25.7  11.25.8  11.25.8  11.25.9  11.25.9  11.25.9  11.25.1  11.25.1  11.25.9  11.25.1  11.25.1  11.25.1  11.25.1  11.25.1  11.25.2  11.25.5  11.25.6  11.25.7  11.25.7  11.25.8  11.25.8  11.25.9  11.25.9  11.25.9  11.25.9  11.25.9  11.25.9  11.25.9  11.25.9  11.25.1  11.25.1  11.25.1  11.25.1  11.25.1  11.25.1  11.25.2  11.25.3  11.25.3  11.25.4  11.25.5  11.25.6  11.25.7  11.25.7  11.25.8  11.25.8  11.25.9  1						
Supply and Install accessories to boxes  5A, 3-pin socket outlets to trunking 11.25.1 11.25.1 11.25.3 16Amp one lever two way light switch 11.25.4 16Amp two lever one way light switch 11.25.6 11.25.7 11.25.7 11.25.8 11.25.8 11.25.9 11.25.9 11.25.9 11.25.0 11.25.0 11.25.0 11.25.1 11.25.1 11.25.1 11.25.1 11.25.1 11.25.1 11.25.2 11.25.1 11.25.2 11.25.1 11.25.2 11.25.1 11.25.2 11.25.1 11.25.2 11.25.2 11.25.3 11.25.3 11.25.3 11.25.3 11.25.4 11.25.5 11.25.6 11.25.7 11.25.7 11.25.7 11.25.7 11.25.8 11.25.8 11.25.9 11.25.9 11.25.1 11.25.1 11.25.1 11.25.1 11.25.1 11.25.1 11.25.1 11.25.2 11.25.2 11.25.3 11.25.	11.2.4.2	Installation	INO	30		
Supply and Install accessories to boxes  5A, 3-pin socket outlets to trunking 11.25.1 11.25.1 11.25.3 16Amp one lever two way light switch 11.25.4 16Amp two lever one way light switch 11.25.6 11.25.7 11.25.7 11.25.8 11.25.8 11.25.9 11.25.9 11.25.9 11.25.0 11.25.0 11.25.0 11.25.1 11.25.1 11.25.1 11.25.1 11.25.1 11.25.1 11.25.2 11.25.1 11.25.2 11.25.1 11.25.2 11.25.1 11.25.2 11.25.1 11.25.2 11.25.2 11.25.3 11.25.3 11.25.3 11.25.3 11.25.4 11.25.5 11.25.6 11.25.7 11.25.7 11.25.7 11.25.7 11.25.8 11.25.8 11.25.9 11.25.9 11.25.1 11.25.1 11.25.1 11.25.1 11.25.1 11.25.1 11.25.1 11.25.2 11.25.2 11.25.3 11.25.		ACCESSORIES				
11.2.5.1   5A, 3-pin socket outlets to trunking   No   10   16Amp one lever one way light switch   No   2   16Amp noe lever two way light switch   No   2   16Amp two lever one way light switch   No   Rate   Rat						
11.2.5.2 16Amp one lever one way light switch 12.5.3 16Amp tone lever two way light switch 12.5.4 16Amp two lever one way light switch 16Amp two lever two way light switch 16Amp two lever two way light switch 16Amp two lever two way light switch 16Amp two lever two way light switch 16Amp two lever two way light switch 16Amp two lever two way light switch 16Amp two lever two way light switch 16Amp two lever two way light switch 16Amp two lever two way light switch 16Amp two lever two way light switch 16Amp two lever two way light switch 16Amp two lever two way light switch 16Amp two lever two way light switch 16Amp two lever two way light switch 16Amp two lever two way light switch 16Amp two lever two way light switch 16Amp two lever was light switch	11.2.5					
11.2.5.4 16Amp one lever two way light switch 11.2.5.4 16Amp two lever one way light switch 11.2.5.5 16Amp two lever two way light switch 11.2.5.5 16Amp two lever two way light switch 11.2.5.5 16Amp two lever two way light switch 11.2.5.6 17.2.5.7 12.5.7 12.5.7 12.5.7 12.5.7 12.5.7 12.5.7 12.5.7 12.5.7 12.5.7 12.5.1			_	_		
11.2.5.4 16.Amp two lever one way light switch 11.2.5.5 16.Amp two lever two way light switch 11.2.5.6 11.2.5.7 WIRING AND TERMINALS  11.2.6.1 Supply, Deliver and installation of Cu Conductors: 4mm² PVC insulated conductor Supply and delivery Installation 11.2.6.2 Supply and delivery Installation 11.2.6.3 Supply and delivery Installation 11.2.6.4 Supply and delivery Installation 11.2.6.5 Supply and delivery Installation 11.2.6.6 Supply and delivery Installation 11.2.6.7 Supply and delivery Installation 11.2.6.8 Supply and delivery Installation 11.2.6.9 Supply and delivery Installation 11.2.6.1 Supply and delivery Installation 11.2.6.2 Supply and delivery Installation 11.2.6.3 Supply and delivery Installation In			_	_		
112.5.6 Photocell No 1 12.5.7 WIRING AND TERMINALS  112.6.1 Supply, Deliver and installation of Cu Conductors:  4 Anna PVC insulated conductor  5 Supply and delivery Meter Rate Rate Installation  112.6.2 Symm² PVC insulated conductor  5 Supply and delivery Meter Rate Rate Installation  112.6.3 Symm² PVC insulated conductor  5 Supply and delivery Meter Rate Rate Rate Installation  112.6.4 Symm² PVC insulated conductor  5 Supply and delivery Meter Rate Rate Rate Installation  112.6.5 Symm² Heat resistant conductor  5 Supply and delivery Meter Rate Rate Rate Rate Rate Rate Rate Rate			_			Doto Only
Photocell Ceiling mounted occupancy sensor  WIRING AND TERMINALS  11.2.6.1 11.2.6.1 11.2.6.1 2.5mm² PVC insulated conductor Supply and delivery Installation  2.5mm² PVC insulated conductor Supply and delivery Installation  2.5mm² PVC insulated conductor Supply and delivery Installation  4.5mm² Supply and delivery Installation  4.5mm² Supply and delivery Installation  4.5mm² Supply and delivery Installation  4.5mm² Supply and delivery Installation  4.5mm² Supply and delivery Installation  4.5mm² Supply and delivery Installation  5.5mm² Supply			_			Rate Only Rate Only
11.2.5.7   Ceiling mounted occupancy sensor   No   8     WIRING AND TERMINALS     11.2.6.1     11.2.6.1     11.2.6.1     11.2.6.2     12.5.2     Supply, Deliver and installation of Cu Conductors:     Installation   Meter     Installation   Meter     Installation   Meter     Installation   Meter     Installation   Meter     Installation   Meter     Rate   Rate			_			i Rate Offig
WIRING AND TERMINALS  11.2.6  11.2.6.1  11.2.6.1  11.2.6.1  11.2.6.2  Supply, Deliver and installation of Cu Conductors:  4mm² PVC insulated conductor  Supply and delivery Installation  11.2.6.2  2,5mm² PVC insulated conductor  Supply and delivery Installation  11.2.6.3  2,5mm² Heat resistant conductor  Supply and delivery Installation  11.2.6.4  2,5mm² bare copper earth wire  Supply and delivery Installation  11.2.6.5  Supply and delivery Installation  11.2.6.6  Supply and delivery Installation  11.2.6.7  Supply and delivery Installation  11.2.6.8  Supply and delivery Installation  11.2.6.9  Supply and delivery Installation  Meter Rate Rate Rate Rate Rate Rate Rate Rate Rate Rate	11.2.5.7		_			
Supply, Deliver and installation of Cu Conductors:  4mm² PVC insulated conductor Supply and delivery Installation Supply and delivery Installation Supply and delivery Installation Supply and delivery Installation Supply and delivery Installation Supply and delivery Installation Supply and delivery Installation Supply and delivery Installation Supply and delivery Installation Supply and delivery Installation Supply and delivery Installation Supply and delivery Installation Supply and delivery Installation Supply and delivery Installation Installation Meter Supply and delivery Installation Meter Su		Coming mountain companies control		Ü		
### PVC insulated conductor Supply and delivery Installation ### PVC insulated conductor Supply and delivery Installation ### Rate I		WIRING AND TERMINALS				
Supply and delivery Installation 11.2.6.2 2,5mm² PVC insulated conductor Supply and delivery Installation 11.2.6.3 2,5mm² Pdc from a delivery Installation 2,5mm² Heat resistant conductor Supply and delivery Installation 2,5mm² Heat resistant conductor Supply and delivery Installation 4.5mm² Bare copper earth wire Supply and delivery Installation 4.5mm² Bare copper earth wire Supply and delivery Installation 4.5mm² Surfix twin and earth Supply and delivery Installation 4.5mm² Surfix twin and earth Supply and delivery Installation 4.5mm² Surfix twin and earth Supply and delivery Installation 4.5mm² Surfix twin and earth Supply and delivery Installation 4.5mm² Surfix twin and earth Supply and delivery Installation 4.5mm² Surfix twin and earth Supply and delivery Installation 4.5mm² Surfix twin and earth Supply and delivery Installation 4.5mm² Surfix twin and earth Supply and delivery Installation 4.5mm² Surfix twin and earth Supply and delivery Installation 5.5mm² Surfix twin and earth Supply and delivery Installation Meter Supply and delivery Installation Supply and delivery	11.2.6	Supply, Deliver and installation of Cu Conductors:				
Installation 2,5mm² PVC insulated conductor Supply and delivery Meter Installation Meter Supply and delivery Meter Supply and delivery Meter Supply and delivery Meter Supply and delivery Installation Meter Supply and delivery Supply and delivery Meter Supply and delivery Supply and deliv	11.2.6.1	4mm² PVC insulated conductor				
11.2.6.2 2,5mm² PVC insulated conductor Supply and delivery Installation Meter Rate Installation Meter Rate Installation Meter Rate Rate Installation Meter Rate Installation Meter Rate Installation Meter Rate Rate Installation Meter Rate Rate Installation Meter Rate Rate Rate Installation Meter Supply and delivery Meter Rate Installation Meter Rate Installation Meter Rate Rate Installation Meter Rate Rate Rate Installation Meter Rate Rate Installation Meter Rate Rate Rate Installation Meter Supply and delivery Meter Rate Rate Rate Installation Meter Supply and delivery Meter Supply a			Meter	Rate		Rate Only
Supply and delivery Installation			Meter	Rate		Rate Only
Installation 2,5mm² Heat resistant conductor Supply and delivery Installation Meter Rate Rate Rate Rate Rate Installation Meter Rate Rate Rate Rate Rate Rate Rate Rate	11.2.6.2			D-1-		Data Oak
11.2.6.3 2,5mm² Heat resistant conductor Supply and delivery Installation 2,5mm² bare copper earth wire Supply and delivery Installation 11.2.6.5 Supply and delivery Installation 1.5mm² surfix twin and earth Supply and delivery Installation 1.5mm² surfix twin and earth Supply and delivery Installation 1.5mm² surfix twin and earth Supply and delivery Installation  Meter Rate Rate Rate Rate Rate Rate Rate Rate Rate		***				Rate Only
Supply and delivery Installation 2,5mm² bare copper earth wire Supply and delivery Meter Supply and delivery Meter Installation 11.2.6.5 1.5mm² surfix twin and earth Supply and delivery Meter Installation 1.5mm² surfix twin and earth Supply and delivery Meter Installation  Supply and delivery Meter Supp	11263		weter	Rate		Rate Only
Installation 2,5mm² bare copper earth wire Supply and delivery Installation 11.2.6.5 11.2.6.5 Supply and delivery Installation 1.5mm² surfix twin and earth Supply and delivery Installation Meter 250 Meter Rate Rate Rate Rate Rate Rate Rate Rate	11.2.0.0		Meter	Rate		Rate Only
11.2.6.4 2,5mm² bare copper earth wire Supply and delivery Installation Meter Installatio						Rate Only
Supply and delivery Installation 1.5mm² surfix twin and earth Supply and delivery Installation  Supply and delivery Meter 250 Installation Meter 250 Installation Meter 250  Meter 250  Meter 250  Meter 250  Meter 250  Meter 250  Meter 250  Meter 250  Meter 250  Meter 250  Meter 250	11.2.6.4					1
11.2.6.5 1.5mm² surfix twin and earth Supply and delivery Installation Meter 250 Meter 250  SUB-TOTAL FOR THIS PAGE CARRIED FORWARD			Meter	Rate		Rate Only
Supply and delivery Installation Meter 250 Meter 250  Supply and delivery Installation Meter 250  Meter 250  Meter 250  Meter 250  Meter 250  Sub-Total For this page Carried Forward			Meter	Rate		Rate Only
Installation Meter 250  SUB-TOTAL FOR THIS PAGE CARRIED FORWARD	11.2.6.5					
SUB-TOTAL FOR THIS PAGE CARRIED FORWARD						
		Installation	Meter	250		
	CHP TO	OTAL FOR THIS PAGE CARRIED FORWARD			<u> </u>	

ITEM	DESCRIPTION	UNIT	QTY	TENDE RATE	R VALUE AMOUNT
	OTAL FROM PREVIOUS PAGE			KAIL	AMOUNT
	LIGHT FITTINGS				
11.2.7	Supply, deliver, install, connect, test and commissioning the following light fittings				
11.2.7.1	TYPE F01 - 1200mm, 20W surface mounted LED batten light fitting with rolled mild steel body and a white epoxy powder coated finish	No	2		
11.2.7.2	TYPE C1 - 83mm diameter LED downlight ceiling recessed Die-cast aluminium body with acrylic lens(8w cool white)	No	15		
11.2.7.3	TYPE F02 - 1200mm, 30W surface mounted LED vapor proof light fitting with self-extinguishing polycarbonate body	No	30		
11.2.7.4	TYPE P1 - 127mm diameter ,21W Adjustable-angle LED downlight fitting with die-cast aluminium bod	No	5		
11.2.7.5	TYPE P2 - Ceiling mounted LED light fitting with LM6 die cast and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp - Emergency type with backup power	No	8		
11.2.7.6	TYPE W1 - Wall mounted bulkhead LED light fitting with LM6 die cast and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp	No	7		
11.2.7.7	TYPE D1 - 83mm diameter LED downlight ceiling recessed Die-cast aluminium body with acrylic lens, 6W warm white	No	44		
	BILL CARRIED FORWARD TO TENDER SUMMARY				

BLOCK 7 - TYPE 2A HOSTEL

SUBJECT: BILL OF QUANTITIES

# BILL No.11.3: SMALL POWER INSTALLATION

		UNIT	QTY	TENDE	R VALUE
ITEM	DESCRIPTION			RATE	AMOUNT
					-
	WIREWAYS				
	Supply, delivery and installation of PVC conduits, surface mounted in ceiling voids and				
	fixed to walls or cast-in or built into walls, including all fixing materials, bends,				
	terminations, draw boxes, etc.				
11.3.1	20mm diameter				
11.3.1.1	Supply and delivery	Meter	220		
11.3.1.2	Installation	Meter	220		
11.3.2	Supply and install conduit droppers chased or built into wall, consisting of 3 x 25mm				
	dia & 2 x 20mm dia from wire basket & trunking in ceiling void to power skirting c/w				
	1.6mm draw wires	No	60		
	Supply, delivery and installation of Conduit outlets boxes c/w locknuts and bushes built	_			
11.3.3	into brick or cast into concrete or surface mounted, c/w applicable cover				
11.3.3.1	100 x 100 x 50 mm	No	60		
11.3.3.2	Supply and delivery Installation	No	60		
	motunation	110	00		
	ACCESSORIES				
	Supply, delivery and installation of socket outlets				
11.3.4	16 A, 3-pin standard white SSO plus triple slimline 16A type 164-2				
11.3.4.1	Flush Mounted in wall box	No	56		
11.3.4.2	Mounted in floorbox	No	Rate		Rate Only
11.3.4.3	Surface mounted	No	Rate		Rate Only
11.3.4.4	Power skirting mounted	No	Rate		Rate Only
11.3.5	4C A 2 min double white CCC				
11.3.5.1	16 A, 3-pin double white SSO Flush Mounted	No	Rate		Rate Only
11.3.5.2	Surface mounted	No	Rate		Rate Only
					,
11.3.6	16 A, 3-pin dedicated red SSO				
11.3.6.1	Flush Mounted in 100 X 100 (HVAC)	No	Rate		Rate Only
11.3.6.2 11.3.6.3	Mounted in floorbox	No	Rate		Rate Only
11.3.0.3	Power skirting mounted, 45 degree (including plug top)	No	Rate		Rate Only
	WIRING AND TERMINALS				
11.3.7	Supply, Deliver and installation of Cu Conductors:				
11.3.7.1	2.5mm² PVC insulated conductor				
	Supply and delivery	Meter	250		
	Installation	Meter	250		
11.3.7.2	4mm² PVC insulated conductor		D-1-		Data Oak
	Supply and delivery Installation	Meter	Rate Rate		Rate Only
11.3.7.3	4mm² 4 core Surfix (For HVAC)	Meter	Raie		Rate Only
	Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
11 2 7 4	O Cours? DVG in avalated a critic				
11.3.7.4	2.5mm² PVC insulated earth Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
11.3.7.5	2.5mm² bare copper earth wire	Wictor	rato		rtate Offig
	Supply and delivery	Meter	125		
	Installation	Meter	125		
TOTAL	BILL CARRIED FORWARD TO TENDER SUMMARY				

TOTAL BILL CARRIED FORWARD TO TENDER SUMMARY MOEDWIL COMBINED SCHOOL - TYPE 2A HOSTEL

SUBJECT: BILL OF QUANTITIES

ITEM	DESCRIPTION	TENDER
1	BILL No.11.1 - DISTRIBUTION BOARDS	
2	BILL No.11.2 - LIGHTING INSTALLATION	
3	BILL No.11.3: SMALL POWER INSTALLATION	
4	TOTAL	

BLOCK 8 - TYPE 2A HOSTEL SUBJECT : BILL OF QUANTITIES

# BILL No.12.1 - DISTRIBUTION BOARDS

Supply, Install, test and commission Sub-distribution boards - surface mounted distribution board cupboards, o'w all switchgear and breakers indicated on the drawing.			UNIT	QTY	TENDE	R VALUE
distribution board cupboards, c'w all switchgear and breakers indicated on the drawing.  22-1.1 DB-8 No 1  22-1.2 Lable all circuits and install signage to the panels sum 1  22-1.3 Certificate of Compliance sum 1  Total Bill. Carried Forward to Tender Summary	ITEM	DESCRIPTION	0		RATE	AMOUNT
drawings  12.1.1 DB-8  No 1  22.1.2 Lable all circuits and install signage to the panels  22.1.3 Cartificate of Compiliance  sum 1  Total Bill Carried Forward to Tender Summary		Supply, Install, test and commission Sub-distribution boards - surface mounted				
12:1.2 Lable all circuits and install signage to the panels  22:1.3 Certificate of Compliance  1.1 Sum 1  1.2 Total Bill Carried Forward to Tender Summary		drawings				
12.1.3 Certificate of Compliance sum 1	12.1.1	DB-8	No	1		
TOTAL BILL CARRIED FORWARD TO TENDER SUMMARY	12.1.2	Lable all circuits and install signage to the panels	sum	1		
TOTAL BILL CARRIED FORWARD TO TENDER SUMMARY BLOCK 8 - TYPE 2A HOSTEL	12.1.3	Certificate of Compliance	sum	1		
TOTAL BILL CARRIED FORWARD TO TENDER SUMMARY BLOCK 8 - TYPE 2A HOSTEL						
TOTAL BILL CARRIED FORWARD TO TENDER SUMMARY BLOCK 8 - TYPE 2A HOSTEL						
TOTAL BILL CARRIED FORWARD TO TENDER SUMMARY BLOCK 8 - TYPE 2A HOSTEL						
TOTAL BILL CARRIED FORWARD TO TENDER SUMMARY BLOCK 8 - TYPE 2A HOSTEL						
TOTAL BILL CARRIED FORWARD TO TENDER SUMMARY BLOCK 8 - TYPE 2A HOSTEL						
TOTAL BILL CARRIED FORWARD TO TENDER SUMMARY BLOCK 8 - TYPE 24 HOSTEL						
TOTAL BILL CARRIED FORWARD TO TENDER SUMMARY BLOCK 8 - TYPE 24 HOSTEL						
TOTAL BILL CARRIED FORWARD TO TENDER SUMMARY BLOCK 8 - TYPE 2A HOSTEL						
TOTAL BILL CARRIED FORWARD TO TENDER SUMMARY BLOCK 8 - TYPE 2A HOSTEL						
TOTAL BILL CARRIED FORWARD TO TENDER SUMMARY BLOCK 8 - TYPE 2A HOSTEL						
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TOTAL BILL CARRIED FORWARD TO TENDER SUMMARY BLOCK 8 - TYPE 2A HOSTEL						
TOTAL BILL CARRIED FORWARD TO TENDER SUMMARY BLOCK 3 - TYPE 2A HOSTEL						
TOTAL BILL CARRIED FORWARD TO TENDER SUMMARY BLOCK 8 - TYPE 2A HOSTEL						
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TOTAL BILL CARRIED FORWARD TO TENDER SUMMARY BLOCK 8 - TYPE 2A HOSTEL						
TOTAL BILL CARRIED FORWARD TO TENDER SUMMARY BLOCK 8 - TYPE 2A HOSTEL						
	TOTAL	BILL CARRIED FORWARD TO TENDER SUMMARY 8 - TYPE 2A HOSTEL				

# **BILL No.12.2 - LIGHTING INSTALLATION**

ITEM	DESCRIPTION	UNIT	QTY	TENDE RATE	R VALUE AMOUNT
IIEW	WIREWAYS			KAIL	AWOUNT
	Supply and Install Trunking				
12.2.1	Supply and install P8300 trunking suspended from slab and trusses in ceiling void.		450		
12.2.1.1 12.2.1.2	Supply and delivery Installation	Meter Meter	150 150		
12.2.1.2	III Staliation	Meter	150		
	Supply, delivery and installation of PVC conduits, surface mounted in ceiling voids and				
	fixed to walls or cast-in or built into walls, including all fixing materials, bends,				
40.00	terminations, draw boxes, etc.				
12.2.2 12.2.2.1	20mm diameter Supply and delivery	Motor	200		
12.2.2.1	Installation	Meter Meter	200		
	Tiotaliation	WICTO	200		
	Supply, delivery and installation of Conduit outlets boxes c/w locknuts and bushes built				
	into brick or cast into concrete or surface mounted				
12.2.3	100 x 50 x 50 mm	N	00		
12.2.3.1 12.2.3.2	Supply and delivery Installation	No No	20 20		
12.2.4	65mm round box	140	20		
12.2.4.1	Supply and delivery	No	30		
12.2.4.2	Installation	No	30		
	40050000150				
	ACCESSORIES				
12.2.5	Supply and Install accessories to boxes				
	5A, 3-pin socket outlets to trunking	No	10		
12.2.5.2	16Amp one lever one way light switch	No	61		
12.2.5.3	16Amp one lever two way light switch	No	2		
12.2.5.4	16Amp two lever one way light switch	No	Rate		Rate Only
12.2.5.5 12.2.5.6	16Amp two lever two way light switch Photocell	No No	Rate 1		Rate Only
12.2.5.7	Ceiling mounted occupancy sensor	No	8		
	3 · · · · · · · · · · · · · · · · · · ·				
	WIRING AND TERMINALS				
12.2.6	Supply, Deliver and installation of Cu Conductors:				
12.2.6.1	4mm² PVC insulated conductor				
	Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
12.2.6.2	2,5mm² PVC insulated conductor		Б.		Data Cala
	Supply and delivery Installation	Meter Meter	Rate Rate		Rate Only Rate Only
12.2.6.3	2,5mm² Heat resistant conductor	Meter	Kale		ivale Only
	Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
12.2.6.4	2,5mm² bare copper earth wire				5.01
	Supply and delivery Installation	Meter Meter	Rate Rate		Rate Only Rate Only
12.2.6.5	1.5mm² surfix twin and earth	Meter	Kale		ivale Only
	Supply and delivery	Meter	250		
	Installation	Meter	250		
0115.5	TAL FOR THE BASE CARRIED FORWARD				
	TAL FOR THIS PAGE CARRIED FORWARD				
DILL NO	.12.2 - LIGHTING INSTALLATION				

		UNIT	QTY		R VALUE
ITEM	DESCRIPTION			RATE	AMOUNT
SUB-TC	OTAL FROM PREVIOUS PAGE				
	LIGHT FITTINGS				
12.2.7	Supply, deliver, install, connect, test and commissioning the following light fittings				
12.2.7.1	TYPE F01 - 1200mm, 20W surface mounted LED batten light fitting with rolled mild steel body and a white epoxy powder coated finish	No	2		
12.2.7.2	TYPE C1 - 83mm diameter LED downlight ceiling recessed Die-cast aluminium body with acrylic lens(8w cool white)	No	15		
12.2.7.3	TYPE F02 - 1200mm, 30W surface mounted LED vapor proof light fitting with self-extinguishing polycarbonate body	No	30		
12.2.7.4	TYPE P1 - 127mm diameter ,21W Adjustable-angle LED downlight fitting with die-cast aluminium bod	No	5		
12.2.7.5	TYPE P2 - Ceiling mounted LED light fitting with LM6 die cast and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp - Emergency type with backup power	No	8		
12.2.7.6	TYPE W1 - Wall mounted bulkhead LED light fitting with LM6 die cast and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp	No	7		
12.2.7.7	TYPE D1 - 83mm diameter LED downlight ceiling recessed Die-cast aluminium body with acrylic lens, 6W warm white	No	44		
ΤΟΤΔΙ	BILL CARRIED FORWARD TO TENDER SUMMARY				

BLOCK 8 - TYPE 2A HOSTEL
SUBJECT: BILL OF QUANTITIES

# **BILL No.12.3: SMALL POWER INSTALLATION**

		UNIT	QTY	TENDE	R VALUE
ITEM	DESCRIPTION			RATE	AMOUNT
	WIREWAYS				
	MINEWATO				
	Supply, delivery and installation of PVC conduits, surface mounted in ceiling voids and				
	fixed to walls or cast-in or built into walls, including all fixing materials, bends,				
	terminations, draw boxes, etc.				
12.3.1	20mm diameter				
12.3.1.1 12.3.1.2	Supply and delivery	Meter	220		
12.3.1.2	Installation	Meter	220		
12.3.2	Supply and install conduit droppers chased or built into wall, consisting of 3 x 25mm				
	dia & 2 x 20mm dia from wire basket & trunking in ceiling void to power skirting c/w				
	1.6mm draw wires	No	60		
	Supply delivery and installation of Conduit autlets have a during and hyphon built				
	Supply, delivery and installation of Conduit outlets boxes c/w locknuts and bushes built into brick or cast into concrete or surface mounted, c/w applicable cover				
12.3.3	100 x 100 x 50 mm				
12.3.3.1	Supply and delivery	No	60		
12.3.3.2	Installation	No	60		
	ACCESSORIES				
	ACCESSORIES				
	Supply, delivery and installation of socket outlets				
11.3.4	16 A, 3-pin standard white SSO plus triple slimline 16A type 164-2				
11.3.4.1	Flush Mounted in wall box	No	56		
11.3.4.2	Mounted in floorbox	No	Rate		Rate Only
11.3.4.3	Surface mounted	No	Rate		Rate Only
11.3.4.4	Power skirting mounted	No	Rate		Rate Only
11.3.5	16 A, 3-pin double white SSO				
11.3.5.1	Flush Mounted	No	Rate		Rate Only
11.3.5.2	Surface mounted	No	Rate		Rate Only
11.3.6	16 A, 3-pin dedicated red SSO				
11.3.6.1	Flush Mounted in 100 X 100 (HVAC)	No	Rate		Rate Only
11.3.6.2	Mounted in floorbox	No	Rate		Rate Only
11.3.6.3	Power skirting mounted, 45 degree (including plug top)	No	Rate		Rate Only
	WIRING AND TERMINALS				
11.3.7	Supply, Deliver and installation of Cu Conductors:				
11.3.7.1	2.5mm² PVC insulated conductor				
	Supply and delivery	Meter	250		
	Installation	Meter	250		
11.3.7.2	4mm² PVC insulated conductor		D-1-		Data Oak
	Supply and delivery Installation	Meter	Rate		Rate Only
11.3.7.3	4mm² 4 core Surfix (For HVAC)	Meter	Rate		Rate Only
11.0.7.0	Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
44 0 7 4	O Survey DVO in colors of contr				
11.3.7.4	2.5mm² PVC insulated earth	Motor	Doto		Poto Onle
	Supply and delivery Installation	Meter Meter	Rate Rate		Rate Only Rate Only
11.3.7.5	2.5mm² bare copper earth wire	INICICI	Nate		Nate Offig
	Supply and delivery	Meter	125		
	Installation	Meter	125		
TOTAL	BILL CARRIED FORWARD TO TENDER SUMMARY	1		1	

TOTAL BILL CARRIED FORWARD TO TENDER SUMMARY

BLOCK 8 - TYPE 2A HOSTEL

SUBJECT: BILL OF QUANTITIES

ITEM	DESCRIPTION	TENDER
1	BILL No.12.1 - DISTRIBUTION BOARDS	
2	BILL No.12.2 - LIGHTING INSTALLATION	
3	BILL No.12.3: SMALL POWER INSTALLATION	
4	TOTAL	

E	BILL NO. 04	
BLO	OCK 9 - TV ROOM	

BLOCK 9 - TV ROOM
SUBJECT: BILL OF QUANTITIES

# BILL No.13.1 - DISTRIBUTION BOARDS

.==	D. T. CODID TION	UNIT	QTY	TENDE	R VALUE
ITEM	DESCRIPTION Supply, Install, test and commission Sub-distribution boards - surface mounted			RATE	AMOUNT
	distribution board cupboards, c/w all switchgear and breakers indicated on the				
	drawings				
13.1.1	DB-9	No	1		
13.1.2	Lable all circuits and install signage to the panels	sum	1		
13.1.3	Certificate of Compliance	sum	1		
ΤΟΤΔΙ	BILL CARRIED FORWARD TO TENDER SUMMARY				0,00
	(9 - TV ROOM				0,00

# **BILL No.13.2 - LIGHTING INSTALLATION**

		UNIT	QTY		R VALUE
ITEM	DESCRIPTION   WIREWAYS			RATE	AMOUNT
	WIREWAYS				
	Supply and Install Trunking				
13.2.1	Supply and install P8300 trunking suspended from slab and trusses in ceiling void.				
13.2.1.1	Supply and delivery	Meter	20		
13.2.1.2	Installation	Meter	20		
	Supply, delivery and installation of PVC conduits, surface mounted in ceiling voids and				
	fixed to walls or cast-in or built into walls, including all fixing materials, bends,				
	terminations, draw boxes, etc.				
13.2.2	20mm diameter				
13.2.2.1	Supply and delivery	Meter	60		
13.2.2.2	Installation	Meter	60		
	Supply delivery and installation of Conduit autlate haves also leaknuts and hughes built				
	Supply, delivery and installation of Conduit outlets boxes c/w locknuts and bushes built into brick or cast into concrete or surface mounted				
13.2.3	100 x 50 x 50 mm				
13.2.3.1	Supply and delivery	No	4		
13.2.3.2	Installation	No	4		
13.2.4	65mm round box	1.0	•		
13.2.4.1	Supply and delivery	No	16		
13.2.4.2	Installation	No	16		
	ACCESSORIES				
13.2.5	Supply and Install accessories to boxes				
13.2.5.1	5A, 3-pin socket outlets to trunking	No			
13.2.5.2 13.2.5.3	16Amp one lever one way light switch	No	2 Doto		Rate Only
13.2.5.4	16Amp one lever two way light switch 16Amp two lever one way light switch	No No	Rate Rate		Rate Only
13.2.5.5	16Amp two lever two way light switch	No	Rate		Rate Only
13.2.5.6	Photocell	No	1		rtato omy
13.2.5.7	Ceiling mounted occupancy sensor	No	2		
	3				
	WIRING AND TERMINALS				
13.2.6	Supply, Deliver and installation of Cu Conductors:				
13.2.6.1	4mm² PVC insulated conductor				5.01
	Supply and delivery	Meter	Rate		Rate Only
13.2.6.2	Installation 2,5mm² PVC insulated conductor	Meter	Rate		Rate Only
13.2.0.2	Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
13.2.6.3	2,5mm² Heat resistant conductor	IVICTO	rato		rtate erny
	Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
13.2.6.4	2,5mm² bare copper earth wire				
	Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
13.2.6.5	1.5mm² surfix twin and earth				
	Supply and delivery	Meter	60		Rate Only
	Installation	Meter	60		Rate Only
SUBT	L DTAL FOR THIS PAGE CARRIED FORWARD			ļ	
	A 2.2. LICUTING INICTALL ATION				<u> </u>

BILL No.13.2 - LIGHTING INSTALLATION

ITEM	DESCRIPTION	UNIT	QTY	TENDE RATE	R VALUE AMOUNT
	OTAL FROM PREVIOUS PAGE			NAIL	AWOON
	LIGHT FITTINGS				
13.2.7	Supply, deliver, install, connect, test and commissioning the following light fittings				
13.2.7.1	TYPE C1 - 83mm diameter LED downlight ceiling recessed Die-cast aluminium body with acrylic lens(8w cool white)	No	4		
13.2.7.2	TYPE F01 - 1200mm, 20W surface mounted LED batten light fitting with rolled mild steel body and a white epoxy powder coated finish	No	24		
13.2.7.3	TYPE P2 -Wall mounted LED light fitting with LM6 die cast and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp - Emergency type with backup power	No	2		
13.2.7.4	TYPE W1 - Wall mounted bulkhead LED light fitting with LM6 die cast and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp	No	6		
BLOCK	BILL CARRIED FORWARD TO TENDER SUMMARY ( 9 - TV ROOM				
	CT : BILL OF QUANTITIES				

# **BILL No.13.3: SMALL POWER INSTALLATION**

		UNIT	QTY		R VALUE
ITEM	DESCRIPTION			RATE	AMOUNT
	WIREWAYS				
	WIREWATS				
	Supply, delivery and installation of PVC conduits, surface mounted in ceiling voids and				
	fixed to walls or cast-in or built into walls, including all fixing materials, bends,				
	terminations, draw boxes, etc.				
13.3.1	20mm diameter				
13.3.1.1	Supply and delivery	Meter	Rate		Rate Only
13.3.1.2	Installation	Meter	Rate		Rate Only
13.3.2	Supply and install conduit droppers chased or built into wall, consisting of 3 x 25mm				
10.0.2	dia & 2 x 20mm dia from wire basket & trunking in ceiling void to power skirting c/w				
	1.6mm draw wires	No	10		
	Supply, delivery and installation of Conduit outlets boxes c/w locknuts and bushes built				
40.00	into brick or cast into concrete or surface mounted, c/w applicable cover				
13.3.3 13.3.3.1	100 x 100 x 50 mm	NIa	00		
13.3.3.2	Supply and delivery Installation	No No	80 80		
10.0.0.2	Installation	INO	80		
	ACCESSORIES				
	Supply, delivery and installation of socket outlets				
13.3.4	16 A, 3-pin standard white SSO plus triple slimline 16A type 164-2				
13.3.4.1	Flush Mounted in wall box	No	10		
13.3.4.2	Mounted in floorbox	No	Rate		Rate Only
13.3.4.3	Surface mounted	No	Rate		Rate Only
13.3.4.4	Power skirting mounted	No	Rate		Rate Only
13.3.5 13.3.5.1	16 A, 3-pin double white SSO	NIa	Data		Data Only
13.3.5.1	Flush Mounted Surface mounted	No No	Rate Rate		Rate Only Rate Only
10.0.0.2	Surface mounted	INO	Nate		itale Only
13.3.6	16 A, 3-pin dedicated red SSO				
13.3.6.1	Flush Mounted in 100 X 100 (HVAC)	No	Rate		Rate Only
13.3.6.2	Mounted in floorbox	No	Rate		Rate Only
13.3.6.3	Power skirting mounted, 45 degree (including plug top)	No	Rate		Rate Only
	WIRING AND TERMINALS				
13.3.7	Supply, Deliver and installation of Cu Conductors:				
13.3.7.1	2.5mm² PVC insulated conductor				
	Supply and delivery	Meter	120		
	Installation	Meter	120		
13.3.7.2	4mm² PVC insulated conductor				_
	Supply and delivery	Meter	Rate		Rate Only
13.3.7.3	Installation	Meter	Rate		Rate Only
13.3.7.3	4mm² 4 core Surfix (For HVAC) Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
13.3.7.4	2.5mm² PVC insulated earth	Wictor	rtate		reace Offiny
	Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
13.3.7.5	1.5mm² bare copper earth wire				
	Supply and delivery	Meter	60		
	Installation	Meter	60		
TOTAL	BILL CARRIED FORWARD TO TENDER SUMMARY	1 1		l	

TOTAL BILL CARRIED FORWARD TO TENDER SUMMARY

BLOCK 9 - TV ROOM

SUBJECT: BILL OF QUANTITIES

ITEM	DESCRIPTION	TENDER
1	BILL No.13.1 - DISTRIBUTION BOARDS	
2	BILL No.13.2 - LIGHTING INSTALLATION	
3	BILL No.13.3: SMALL POWER INSTALLATION	
4	TOTAL	

BILL NO. 05
BLOCK 10 - TYPE 1 HOSTEL

BLOCK10 - TYPE 1A HOSTEL SUBJECT : BILL OF QUANTITIES

# BILL No.14.1 - DISTRIBUTION BOARDS

		UNIT	QTY	TENDE	R VALUE
ITEM	DESCRIPTION			RATE	AMOUNT
	Supply, Install, test and commision Sub-distribution boards - surface mounted distribution board cupboards, c/w all switchgear and breakers indicated on the drawings				
	a.a.m.go				
14.1.1	DB-10	No	1		
14.1.2	Lable all circuits and install signage to the panels	sum	1		
14.1.3	Certificate of Compliance	sum	1		
	FOR BILL CARRIED FORWARD TO SUMMARY 10 - TYPE 1A HOSTEL				

Moedwil Combined School- 14 - Block 10 - Type 1 Hostel

# **BILL No.14.2 - LIGHTING INSTALLATION**

		UNIT	QTY	TENDE	R VALUE
ITEM	DESCRIPTION			RATE	AMOUNT
	WIREWAYS				
	Supply and Install Trunking				
14.2.1	Supply and install P8300 trunking suspended from slab and trusses in ceiling void.				
14.2.1.1	Supply and delivery	Meter	120		
14.2.1.2	Installation	Meter	120		
	Supply, delivery and installation of PVC conduits, surface mounted in ceiling voids and				
	fixed to walls or cast-in or built into walls, including all fixing materials, bends,				
14.2.2	terminations, draw boxes, etc. 20mm diameter				
14.2.2.1	Supply and delivery	Meter	200		
14.2.2.2	Installation	Meter	200		
	Supply, delivery and installation of Conduit outlets boxes c/w locknuts and bushes built				
	into brick or cast into concrete or surface mounted				
14.2.3	100 x 50 x 50 mm				
14.2.3.1	Supply and delivery	No	18		
14.2.3.2 14.2.4	Installation 65mm round box	No	18		
14.2.4.1	Supply and delivery	No	28		
14.2.4.2	Installation	No	28		
	ACCESSORIES				
14.2.5	Supply and Install accessories to boxes				
14.2.5.1	5A, 3-pin socket outlets to trunking	No	10		
14.2.5.2 14.2.5.3	16Amp one lever one way light switch	No No	16 2		
14.2.5.4	16Amp one lever two way light switch 16Amp two lever one way light switch	No	∠ Rate		Rate Only
14.2.5.5	16Amp two lever two way light switch	No	Rate		Rate Only
14.2.5.6	Photocell	No	1		
14.2.5.7	Ceiling mounted occupancy sensor	No	6		
	WIRING AND TERMINALS				
14.2.6	Supply, Deliver and installation of Cu Conductors:				
14.2.6.1	4mm² PVC insulated conductor				
	Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
14.2.6.2	2,5mm² PVC insulated conductor				
	Supply and delivery	Meter	Rate		Rate Only
14.2.6.3	Installation	Meter	Rate		Rate Only
14.2.0.3	2,5mm² Heat resistant conductor Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
14.2.6.4	2,5mm² bare copper earth wire				
	Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
14.2.6.5	1.5mm² surfix twin and earth	.	<b>65</b> -		
	Supply and delivery	Meter	230		
	Installation	Meter	230		
	TAL FOR THIS PAGE CARRIED FORWARD				
RILL NO	.14.2 - LIGHTING INSTALLATION				

4.2.7 <u>\$</u> 4.2.7.1 = \$	IGHT FITTINGS  Supply, deliver, install, connect, test and commissioning the following light fittings  TYPE F01 - 1200mm, 20W surface mounted LED batten light fitting with rolled mild steel body and a white epoxy powder coated finish  TYPE C1 - 83mm diameter LED downlight ceiling recessed Die-cast aluminium body	No		RATE	AMOUNT
4.2.7 <u>\$</u> 4.2.7.1 = \$	LIGHT FITTINGS  Supply, deliver, install, connect, test and commissioning the following light fittings  TYPE F01 - 1200mm, 20W surface mounted LED batten light fitting with rolled mild steel body and a white epoxy powder coated finish	No			
4.2.7.1 - 4.2.7.2 - 4.2.7.2	Supply, deliver, install, connect, test and commissioning the following light fittings  TYPE F01 - 1200mm, 20W surface mounted LED batten light fitting with rolled mild steel body and a white epoxy powder coated finish	No			
4.2.7.1 - 4.2.7.2 -	TYPE F01 - 1200mm, 20W surface mounted LED batten light fitting with rolled mild steel body and a white epoxy powder coated finish	No			
4.2.7.2	steel body and a white epoxy powder coated finish	No			
	TVPE C1 - 83mm diameter LED downlight ceiling recessed Die-cast aluminium hody		2		
	with acrylic lens(8w cool white)	No	30		
	TYPE F02 - 1200mm, 30W surface mounted LED vapor proof light fitting with self- extinguishing polycarbonate body	No	12		
	TYPE P1 - 127mm diameter ,21W Adjustable-angle LED downlight fitting with die-cast aluminium bod	No	10		
ŀ	TYPE P2 - Ceiling mounted LED light fitting with LM6 die cast and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp - Emergency type with backup power	No	4		
	TYPE W1 - Wall mounted bulkhead LED light fitting with LM6 die cast and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp	No	4		
	TYPE D1 - 83mm diameter LED downlight ceiling recessed Die-cast aluminium body with acrylic lens, 6W warm white	No	8		
	SILL CARRIED FORWARD TO TENDER SUMMARY				
_	10 - TYPE 1A HOSTEL				

# **BILL No.14.3: SMALL POWER INSTALLATION**

		UNIT	QTY	TENDE	R VALUE
ITEM	DESCRIPTION			RATE	AMOUNT
	MIDEMAYS				
	WIREWAYS				
	Supply, delivery and installation of PVC conduits, surface mounted in ceiling voids and				
	fixed to walls or cast-in or built into walls, including all fixing materials, bends,				
	terminations, draw boxes, etc.				
14.3.1	20mm diameter				
14.3.1.1	Supply and delivery	Meter	220		
14.3.1.2	Installation	Meter	220		
14.3.2	Supply and install conduit droppers chased or built into wall, consisting of 3 x 25mm				
	dia & 2 x 20mm dia from wire basket & trunking in ceiling void to power skirting c/w				
	1.6mm draw wires	No	25		
	Supply, delivery and installation of Conduit outlets boxes c/w locknuts and bushes built				
4400	into brick or cast into concrete or surface mounted, c/w applicable cover				
14.3.3 14.3.3.1	100 x 100 x 50 mm	NIa	05		
14.3.3.1	Supply and delivery Installation	No No	25 25		
14.5.5.2	Installation	INO	23		
	ACCESSORIES				
14.3.4	Supply, delivery and installation of socket outlets				
	16 A, 3-pin standard white SSO plus triple slimline 16A type 164-2				
	Flush Mounted in wall box	No	20		
14.3.4.3	Mounted in floorbox	No	Rate		Rate Only
	Surface mounted	No	Rate		Rate Only
14.3.4.5	Power skirting mounted	No	Rate		Rate Only
14.3.5	16 A, 3-pin double white SSO				
	Flush Mounted	No	Rate		Rate Only
14.3.5.2	Surface mounted	No	Rate		Rate Only
14.3.6	40 A 2 min dedicated and CCO				
	16 A, 3-pin dedicated red SSO Flush Mounted in 100 X 100 (HVAC)	No	Rate		Rate Only
	Mounted in floorbox	No	Rate		Rate Only
	Power skirting mounted, 45 degree (including plug top)	No	Rate		Rate Only
	Town distances, to dogloo (moraling plug top)	110	rtato		rtato orny
	WIRING AND TERMINALS				
14.3.7	Supply, Deliver and installation of Cu Conductors:				
14.3.7.1	2.5mm² PVC insulated conductor				
	Supply and delivery	Meter	250		
	Installation	Meter	250		
14.3.7.2	4mm <sup>2</sup> PVC insulated conductor				
	Supply and delivery	Meter	Rate		Rate Only
14272	Installation	Meter	Rate		Rate Only
14.3.7.3	4mm² 4 core Surfix (For HVAC) Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
14.3.7.4	2.5mm² PVC insulated earth	Wictor	raic		reace Offiny
	Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
14.3.7.5	2.5mm² bare copper earth wire				,
	Supply and delivery	Meter	125		
	Installation	Meter	125		
	BILL CARRIED FORWARD TO TENDER SUMMARY				

TOTAL BILL CARRIED FORWARD TO TENDER SUMMARY

BLOCK10 - TYPE 1A HOSTEL

SUBJECT: BILL OF QUANTITIES

ITEM	DESCRIPTION	TENDER AMOUNT
1	BILL No.14.1 - DISTRIBUTION BOARDS	
2	BILL No.14.2 - LIGHTING INSTALLATION	
3	BILL No.14.3: SMALL POWER INSTALLATION	
4	TOTAL	

BILL NO. 06	
BLOCK 11 - TYPE 1 HOSTEL	

BLOCK 11- TYPE 1A HOSTEL SUBJECT: BILL OF QUANTITIES

# **BILL No.15.1 - DISTRIBUTION BOARDS**

ITENA	DECORPORION	UNIT	QTY	TENDE	R VALUE AMOUNT
ITEM	DESCRIPTION Supply, Install, test and commision Sub-distribution boards - surface mounted			KAIL	AMOUNT
	distribution board cupboards, c/w all switchgear and breakers indicated on the				
	drawings				
15.1.1	DB-11	No	1		
15.1.2	Lable all circuits and install signage to the panels	sum	1		
15.1.3	Certificate of Compliance	sum	1		
	FOR BILL CARRIED FORWARD TO SUMMARY				

**BLOCK 11 - TYPE 1A HOSTEL** 

# **BILL No.15.2 - LIGHTING INSTALLATION**

		UNIT	QTY		R VALUE
ITEM	DESCRIPTION   WIREWAYS			RATE	AMOUNT
	WINEWATS				
	Supply and Install Trunking				
15.2.1	Supply and install P8300 trunking suspended from slab and trusses in ceiling void.				
15.2.1.1	Supply and delivery	Meter	120		
15.2.1.2	Installation	Meter	120		
	Supply, delivery and installation of PVC conduits, surface mounted in ceiling voids and				
	fixed to walls or cast-in or built into walls, including all fixing materials, bends,				
	terminations, draw boxes, etc.				
15.2.2	20mm diameter	N 4 - 4	000		
15.2.2.1 15.2.2.2	Supply and delivery Installation	Meter Meter	200 200		
10.2.2.2	IIIStaliation	Meter	200		
	Supply, delivery and installation of Conduit outlets boxes c/w locknuts and bushes built				
	into brick or cast into concrete or surface mounted				
15.2.3	100 x 50 x 50 mm				
15.2.3.1 15.2.3.2	Supply and delivery Installation	No No	18 18		
15.2.3.2	65mm round box	INO	10		
15.2.4.1	Supply and delivery	No	28		
15.2.4.2	Installation	No	28		
	100F000PUF0				
	ACCESSORIES				
15.2.5	Supply and Install accessories to boxes				
15.2.5.1	5A, 3-pin socket outlets to trunking	No	10		
15.2.5.2	16Amp one lever one way light switch	No	16		
15.2.5.3	16Amp one lever two way light switch	No	_ 2		
15.2.5.4	16Amp two lever one way light switch	No	Rate		Rate Only
15.2.5.5 15.2.5.6	16Amp two lever two way light switch Photocell	No No	Rate 1		Rate Only
15.2.5.7	Ceiling mounted occupancy sensor	No	6		
	g , ,				
	WIRING AND TERMINALS				
15.2.6	Supply, Deliver and installation of Cu Conductors:				
15.2.6.1	4mm² PVC insulated conductor				
	Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
15.2.6.2	2,5mm² PVC insulated conductor	Motor	Poto		Rate Only
	Supply and delivery Installation	Meter Meter	Rate Rate		Rate Only
15.2.6.3	2.5mm² Heat resistant conductor	Wictor	rato		
	Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
15.2.6.4	2,5mm² bare copper earth wire	Motor	Doto		Rate Only
	Supply and delivery Installation	Meter Meter	Rate Rate		Rate Only
15.2.6.5	1.5mm² surfix twin and earth	Wiotoi	rtato		
	Supply and delivery	Meter	230		
	Installation	Meter	230		
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	DTAL FOR THIS PAGE CARRIED FORWARD D.15.2 - LIGHTING INSTALLATION				
140					

TENA	DESCRIPTION	UNIT	QTY	TENDEI RATE	R VALUE AMOUNT
ITEM	DESCRIPTION			KAIE	AMOUNT
SUB-TC	OTAL FROM PREVIOUS PAGE				
	LIGHT FITTINGS				
5.2.7	Supply, deliver, install, connect, test and commissioning the following light fittings				
5.2.7.1	TYPE F01 - 1200mm, 20W surface mounted LED batten light fitting with rolled mild steel body and a white epoxy powder coated finish	No	2		
5.2.7.2	TYPE C1 - 83mm diameter LED downlight ceiling recessed Die-cast aluminium body with acrylic lens(8w cool white)	No	30		
5.2.7.3	TYPE F02 - 1200mm, 30W surface mounted LED vapor proof light fitting with self-extinguishing polycarbonate body	No	12		
5.2.7.4	TYPE P1 - 127mm diameter ,21W Adjustable-angle LED downlight fitting with die-cast aluminium bod	No	10		
5.2.7.5	TYPE P2 - Ceiling mounted LED light fitting with LM6 die cast and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp - Emergency type with backup power	No	4		
5.2.7.6	TYPE W1 - Wall mounted bulkhead LED light fitting with LM6 die cast and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp	No	4		
5.2.7.7	TYPE D1 - 83mm diameter LED downlight ceiling recessed Die-cast aluminium body with acrylic lens, 6W warm white	No	8		
OTAL	 BILL CARRIED FORWARD TO TENDER SUMMARY				

# **BILL No.15.3: SMALL POWER INSTALLATION**

		UNIT	QTY		R VALUE
ITEM	DESCRIPTION			RATE	AMOUNT
	WIREWAYS				
	WIREWATS				
	Supply, delivery and installation of PVC conduits, surface mounted in ceiling voids and				
	fixed to walls or cast-in or built into walls, including all fixing materials, bends,				
	terminations, draw boxes, etc.				
15.3.1	20mm diameter				
15.3.1.1	Supply and delivery	Meter	220		
15.3.1.2	Installation	Meter	220		
15.3.2	Supply and install conduit drappers abased or built into well, consisting of 2 v 25mm				
10.0.2	Supply and install conduit droppers chased or built into wall, consisting of 3 x 25mm dia & 2 x 20mm dia from wire basket & trunking in ceiling void to power skirting c/w				
	1.6mm draw wires	No	25		
	Supply, delivery and installation of Conduit outlets boxes c/w locknuts and bushes built				
	into brick or cast into concrete or surface mounted, c/w applicable cover				
15.3.3	100 x 100 x 50 mm		0.5		
15.3.3.1 15.3.3.2	Supply and delivery	No	25		
15.3.3.2	Installation	No	25		
	ACCESSORIES				
	Supply, delivery and installation of socket outlets				
15.3.4	16 A, 3-pin standard white SSO plus triple slimline 16A type 164-2				
15.3.4.1	Flush Mounted in wall box	No	20		D . O .
15.3.4.2 15.3.4.3	Mounted in floorbox	No No	Rate		Rate Only
15.3.4.4	Surface mounted Power skirting mounted	No	Rate Rate		Rate Only Rate Only
10.0.4.4	Fower Skirting mounted	140	Nate		Nate Only
15.3.5	16 A, 3-pin double white SSO				
15.3.5.1	Flush Mounted	No	Rate		Rate Only
15.3.5.2	Surface mounted	No	Rate		Rate Only
45.0.0	40 A O mile dealine to dead on d OOO				
15.3.6 15.3.6.1	16 A, 3-pin dedicated red SSO Flush Mounted in 100 X 100 (HVAC)	No	Rate		Data Only
15.3.6.1	Mounted in floorbox	No	Rate		Rate Only Rate Only
15.3.6.3	Power skirting mounted, 45 degree (including plug top)	No	Rate		Rate Only
	i ower skirking mounted, 40 degree (moldaling plug top)	110	rato		rtate only
	WIRING AND TERMINALS				
15.3.7	Supply, Deliver and installation of Cu Conductors:				
15.3.7.1	2.5mm² PVC insulated conductor				
	Supply and delivery	Meter	250		
	Installation	Meter	250		
15.3.7.2	4mm² PVC insulated conductor		ъ.		5.5.
	Supply and delivery Installation	Meter	Rate		Rate Only
15.3.7.3	Installation  4mm² 4 core Surfix (For HVAC)	Meter	Rate		Rate Only
13.3.7.3	Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
15.3.7.4	2.5mm² PVC insulated earth		rtato		rtato oriny
	Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
15.3.7.5	2.5mm <sup>2</sup> bare copper earth wire				
	Supply and delivery	Meter	125		
	Installation	Meter	125		
TOTAL	 BILL CARRIED FORWARD TO TENDER SUMMARY			<u> </u>	

TOTAL BILL CARRIED FORWARD TO TENDER SUMMARY BLOCK 11 - TYPE 1A HOSTEL

SUBJECT: BILL OF QUANTITIES

ITEM	DESCRIPTION	TENDER AMOUNT
1	BILL No.15.1 - DISTRIBUTION BOARDS	
2	BILL No.15.2 - LIGHTING INSTALLATION	
3	BILL No.15.3: SMALL POWER INSTALLATION	
4	TOTAL FOR BILL No.15	

BILL NO. 07
BLOCK 12 - TYPE 1 HOSTEL

# BLOCK 12 - TYPE 1A HOSTEL SUBJECT : BILL OF QUANTITIES

## **BILL No.16.1 - DISTRIBUTION BOARDS**

		UNIT	QTY	TENDE	R VALUE AMOUNT
ITEM	DESCRIPTION Supply, Install, test and commision Sub-distribution boards - surface mounted			RATE	AMOUNT
	distribution board cupboards, c/w all switchgear and breakers indicated on the				
	drawings				
16.1.1	DB-12	No	1		
10.1.1	00-12	INO	'		
16.1.2	Lable all circuits and install signage to the panels	sum	1		
16.1.3	Contificate of Compliance		4		
10.1.3	Certificate of Compliance	sum	1		
	FOR BILL CARRIED FORWARD TO SUMMARY		-		

**BLOCK 12 - TYPE 1A HOSTEL** 

### **BILL No.16.2 - LIGHTING INSTALLATION**

		UNIT	QTY		R VALUE
ITEM	DESCRIPTION WIREWAYS			RATE	AMOUNT
	WIREWAIS				
	Supply and Install Trunking				
16.2.1	Supply and install P8300 trunking suspended from slab and trusses in ceiling void.		400		
16.2.1.1 16.2.2.2	Supply and delivery Installation	Meter	120 120		
10.2.2.2	IIIStaliation	Meter	120		
	Supply, delivery and installation of PVC conduits, surface mounted in ceiling voids and				
	fixed to walls or cast-in or built into walls, including all fixing materials, bends,				
	terminations, draw boxes, etc.				
16.2.2	20mm diameter		000		
16.2.2.1 16.2.2.2	Supply and delivery Installation	Meter Meter	200 200		
10.2.2.2	Installation	Meter	200		
	Supply, delivery and installation of Conduit outlets boxes c/w locknuts and bushes built				
	into brick or cast into concrete or surface mounted				
16.2.3	100 x 50 x 50 mm				
16.2.3.1	Supply and delivery	No	18		
16.2.3.2 16.2.4	Installation 65mm round box	No	18		
16.2.4.1	Supply and delivery	No	28		
16.2.4.2	Installation	No	28		
	ACCESSORIES				
4005					
16.2.5 16.2.5.1	Supply and Install accessories to boxes	Na	40		
16.2.5.1	5A, 3-pin socket outlets to trunking 16Amp one lever one way light switch	No No	10 16		
16.2.5.3	16Amp one lever two way light switch	No	2		
16.2.5.4	16Amp two lever one way light switch	No	Rate		Rate Only
16.2.5.5	16Amp two lever two way light switch	No	Rate		Rate Only
16.2.5.6	Photocell	No	1		
16.2.5.7	Ceiling mounted occupancy sensor	No	6		
	WIRING AND TERMINALS				
40.00					
16.2.6 16.2.6.1	Supply, Deliver and installation of Cu Conductors:  4mm² PVC insulated conductor				
10.2.0.1	Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
16.2.6.2	2,5mm² PVC insulated conductor				,
	Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
16.2.6.3	2,5mm² Heat resistant conductor		<b>5</b> .		5.01
	Supply and delivery Installation	Meter	Rate		Rate Only Rate Only
16.2.6.4	2,5mm² bare copper earth wire	Meter	Rate		Kale Only
10.2.0.1	Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
16.2.6.5	1.5mm² surfix twin and earth				
	Supply and delivery	Meter	230		
	Installation	Meter	230		
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	OTAL FOR THIS PAGE CARRIED FORWARD				
DILL IN	o.16.2 - LIGHTING INSTALLATION				

Moedwil Combined School- 16 - Block 12 - Type 1 Hostel

ITEM	DESCRIPTION	UNIT	QTY	TENDEI RATE	R VALUE AMOUNT
	OTAL FROM PREVIOUS PAGE				
	LIGHT FITTINGS				
16.2.7	Supply, deliver, install, connect, test and commissioning the following light fittings				
16.2.7.1	TYPE F01 - 1200mm, 20W surface mounted LED batten light fitting with rolled mild steel body and a white epoxy powder coated finish	No	2		
16.2.7.2	TYPE C1 - 83mm diameter LED downlight ceiling recessed Die-cast aluminium body with acrylic lens(8w cool white)	No	30		
16.2.7.3	TYPE F02 - 1200mm, 30W surface mounted LED vapor proof light fitting with self-extinguishing polycarbonate body	No	12		
16.2.7.4	TYPE P1 - 127mm diameter ,21W Adjustable-angle LED downlight fitting with die-cast aluminium bod	No	10		
16.2.7.5	TYPE P2 - Ceiling mounted LED light fitting with LM6 die cast and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp - Emergency type with backup power	No	4		
16.2.7.6	TYPE W1 - Wall mounted bulkhead LED light fitting with LM6 die cast and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp	No	4		
16.2.7.7	TYPE D1 - 83mm diameter LED downlight ceiling recessed Die-cast aluminium body with acrylic lens, 6W warm white	No	8		
-	BILL CARRIED FORWARD TO TENDER SUMMARY  ( 12 - TYPE 1A HOSTEL				
	CT: BILL OF QUANTITIES				

### **BILL No.16.3: SMALL POWER INSTALLATION**

		UNIT	QTY	TENDE	R VALUE
ITEM	DESCRIPTION			RATE	AMOUNT
	WIREWAYS				
	WINCEWAIS				
	Supply, delivery and installation of PVC conduits, surface mounted in ceiling voids and				
	fixed to walls or cast-in or built into walls, including all fixing materials, bends,				
	terminations, draw boxes, etc.				
16.3.1	20mm diameter				
16.3.1.1	Supply and delivery	Meter	220		
16.3.1.2	Installation	Meter	220		
1000					
16.3.2	Supply and install conduit droppers chased or built into wall, consisting of 3 x 25mm				
	dia & 2 x 20mm dia from wire basket & trunking in ceiling void to power skirting c/w	NIa	0.5		
	1.6mm draw wires	No	25		
	Supply, delivery and installation of Conduit outlets boxes c/w locknuts and bushes built				
	into brick or cast into concrete or surface mounted, c/w applicable cover				
16.3.3	100 x 100 x 50 mm				
16.3.3.1	Supply and delivery	No	25		
16.3.3.2	Installation	No	25		
	ACCESSORIES				
l					
16.3.4	Supply, delivery and installation of socket outlets				
	16 A, 3-pin standard white SSO plus triple slimline 16A type 164-2				
16.3.4.1	Flush Mounted in wall box	No	20		5 . 6 .
	Mounted in floorbox	No	Rate		Rate Only
	Surface mounted	No	Rate		Rate Only
10.3.4.4	Power skirting mounted	No	Rate		Rate Only
16.3.5	16 A, 3-pin double white SSO				
16.3.5.1	Flush Mounted	No	Rate		Rate Only
16.3.5.2		No	Rate		Rate Only
	Surface mounted				
16.3.6	16 A, 3-pin dedicated red SSO				
16.3.6.1	Flush Mounted in 100 X 100 (HVAC)	No	Rate		Rate Only
16.3.6.2	Mounted in floorbox	No	Rate		Rate Only
16.3.6.3	Power skirting mounted, 45 degree (including plug top)	No	Rate		Rate Only
	WIRING AND TERMINALS				
16.3.7	Supply Deliver and installation of Cu Conductors:				
	Supply, Deliver and installation of Cu Conductors: 2.5mm² PVC insulated conductor				
10.3.7.1	Supply and delivery	Meter	250		
	Installation	Meter	250		
16.3.7.2		Wictor	200		
	Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
16.3.7.3	4mm² 4 core Surfix (For HVAC)				,
	Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
16.3.7.4	2.5mm <sup>2</sup> PVC insulated earth				
	Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
16.3.7.5	2.5mm² bare copper earth wire				
	Supply and delivery	Meter	125		
	Installation	Meter	125		
				<u> </u>	<u> </u>
TOTAL	BILL CARRIED FORWARD TO TENDER SUMMARY				

TOTAL BILL CARRIED FORWARD TO TENDER SUMMARY BLOCK 12 - TYPE 1A HOSTEL

SUBJECT: BILL OF QUANTITIES

ITEM	DESCRIPTION	TENDER AMOUNT
1	BILL No.16.1 - DISTRIBUTION BOARDS	
2	BILL No.16.2 - LIGHTING INSTALLATION	
3	BILL No.16.3: SMALL POWER INSTALLATION	
4	TOTAL FOR BILL No.16	

	BILL NO. 08	
BLOC	CK 14 - HOSTEL MASTER	

# BLOCK 14 - HOSTEL MASTER SUBJECT: BILL OF QUANTITIES

### BILL No.17.1 - DISTRIBUTION BOARDS

		UNIT	QTY	TENDE	R VALUE
ITEM	DESCRIPTION	0.411	411	RATE	AMOUNT
	Supply, Install, test and commision Sub-distribution boards - surface mounted				
	distribution board cupboards, c/w all switchgear and breakers indicated on the				
	drawings				
17.1.1	DB-14	No	1		
47.4.0					
17.1.2	Lable all circuits and install signage to the panels	sum	1		
17.1.3	Certificate of Compliance	sum	1		
TOTAL	L BILL CARRIED FORWARD TO TENDER SUMMARY	<u> </u>			
	L BILL CARRIED FORWARD TO TENDER SUMMARY K 14 - HOSTEL MASTER				

### **BILL No.17.2 - LIGHTING INSTALLATION**

		UNIT	QTY	TENDE	R VALUE
ITEM	DESCRIPTION			RATE	AMOUNT
	WIREWAYS				
47.04					
17.2.1	Supply and Install Trunking				
	Supply and install P8300 trunking suspended from slab and trusses in ceiling void.	Motor	Doto		Poto Only
17.2.1.2	Supply and delivery Installation	Meter	Rate		Rate Only Rate Only
	Installation	Meter	Rate		Rate Only
	Supply, delivery and installation of PVC conduits, surface mounted in ceiling voids and				
	fixed to walls or cast-in or built into walls, including all fixing materials, bends,				
	terminations, draw boxes, etc.				
17.2.2	20mm diameter				
l .	Supply and delivery	Meter	150		
	Installation	Meter	150		
	Thoral and the second s	Wictor	100		
	Supply, delivery and installation of Conduit outlets boxes c/w locknuts and bushes built				
	into brick or cast into concrete or surface mounted				
17.2.3	100 x 50 x 50 mm				
17.2.3.1	Supply and delivery	No	4		
	Installation	No	4		
17.2.4	65mm round box				
17.2.4.1	Supply and delivery	No	16		
	Installation	No	16		
	ACCESSORIES				
	Supply and Install accessories to boxes				
17.2.5.1	5A, 3-pin socket outlets to trunking	No	Rate		Rate Only
	16Amp one lever one way light switch	No	8		
	16Amp one lever two way light switch	No	2		
	16Amp two lever one way light switch	No	Rate		Rate Only
	16Amp two lever two way light switch	No	Rate		Rate Only
17.2.5.6	16Amp three lever one way light switch	No	1		
	Photocell	No	1		
17.2.5.8	Ceiling mounted occupancy sensor	No	1		
	WIRING AND TERMINALS				
17.2.6	Supply, Deliver and installation of Cu Conductors:				
	4mm² PVC insulated conductor				
17.2.0.1		Meter	Rate		Rate Only
	Supply and delivery Installation	Meter	Rate		Rate Only
17262	2.5mm² PVC insulated conductor	IVICICI	ivaic		rtate Only
11.2.0.2	Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
17.2.6.3	2,5mm² Heat resistant conductor	IVICTO	rtate		rtato Omy
	Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
17.2.6.4	2,5mm² bare copper earth wire				
	Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
17.2.6.5	1.5mm² surfix twin and earth				
	Supply and delivery	Meter	150		
	Installation	Meter	150		
	OTAL FOR THE BASE CARRIES TO SWAD	L		<u> </u>	
	OTAL FOR THIS PAGE CARRIED FORWARD				

BILL No.17.2 - LIGHTING INSTALLATION

TEM SUB-	DESCRIPTION			RATE	
OD-					AMOUNT
	LIGHT FITTINGS				
7.2.7	Supply, deliver, install, connect, test and commissioning the following light fittings				
7.2.7.1	TYPE C1 - 83mm diameter LED downlight ceiling recessed Die-cast aluminium body with acrylic lens(8w cool white)	No	3		
7.2.7.2	TYPE P1 - 127mm diameter ,21W Adjustable-angle LED downlight fitting with die-cast aluminium bod	No	13		
	TYPE F02 - 1200mm, 30W surface mounted LED vapor proof light fitting with self-extinguishing polycarbonate body	No	2		
	TYPE W1 - Wall mounted bulkhead LED light fitting with LM6 die cast and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp	No	3		
BLOC	. BILL CARRIED FORWARD TO TENDER SUMMARY K 14 - HOSTEL MASTER ECT: BILL OF QUANTITIES				

### **BILL No.17.3: SMALL POWER INSTALLATION**

		UNIT	QTY	TENDE	R VALUE
ITEM	DESCRIPTION			RATE	AMOUNT
	MIDEMANO				
	WIREWAYS				
	Supply, delivery and installation of PVC conduits, surface mounted in ceiling voids and				
	fixed to walls or cast-in or built into walls, including all fixing materials, bends,				
	terminations, draw boxes, etc.				
17.3.1	20mm diameter				
17.3.1.1 17.3.1.2	Supply and delivery	Meter Meter	160		
17.3.1.2	Installation	weter	160		
17.3.2	Supply and install conduit droppers chased or built into wall, consisting of 3 x 25mm				
	dia & 2 x 20mm dia from wire basket & trunking in ceiling void to power skirting c/w				
	1.6mm draw wires	No	10		
	Supply, delivery and installation of Conduit outlets boxes c/w locknuts and bushes built				
17.3.3	into brick or cast into concrete or surface mounted, c/w applicable cover				
17.3.3.1	100 x 100 x 50 mm Supply and delivery	No	12		
17.3.3.2	Installation	No	12		
	Tiolanation	110			
	ACCESSORIES				
1704	Supply, delivery and installation of socket outlets				
	16 A, 3-pin standard white SSO plus triple slimline 16A type 164-2 Flush Mounted in wall box	No	1.1		
	Mounted in Wall box Mounted in floorbox	No No	14 Rate		Rate Only
	Surface mounted	No	Rate		Rate Only
	Power skirting mounted	No	Rate		Rate Only
	Town diaming mounted				
17.3.5	16 A, 3-pin double white SSO				
	Flush Mounted	No	Rate		Rate Only
17.3.5.2	Surface mounted	No	Rate		Rate Only
1706	40 A 2 min dedicated and CCO				
17.3.6 17.3.6.1	16 A, 3-pin dedicated red SSO Flush Mounted in 100 X 100 (HVAC)	No	Rate		Rate Only
	Mounted in floorbox	No	Rate		Rate Only
	Power skirting mounted, 45 degree (including plug top)	No	Rate		Rate Only
	. one. on any mountain, no angles (mountaing play top)				
	WIRING AND TERMINALS				
17.3.7	Supply, Deliver and installation of Cu Conductors:				
	2.5mm² PVC insulated conductor				
	Supply and delivery	Meter	180		
	Installation	Meter	180		
17.3.7.2	4mm² PVC insulated conductor				
	Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
17.3.7.3	4mm² 4 core Surfix (For HVAC)		Data		Data Oak
	Supply and delivery Installation	Meter Meter	Rate Rate		Rate Only Rate Only
17374	2.5mm² PVC insulated earth	weter	Rate		Rate Offig
	Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
17.3.7.5	1.5mm² bare copper earth wire				,
	Supply and delivery	Meter	90		
	Installation	Meter	90		
TOTAL	BILL CARRIED FORWARD TO TENDER SUMMARY			•	

TOTAL BILL CARRIED FORWARD TO TENDER SUMMARY BLOCK 14 - HOSTEL MASTER

SUBJECT: BILL OF QUANTITIES

ITEM	DESCRIPTION	TENDER AMOUNT
1	BILL No.17.1 - DISTRIBUTION BOARDS	
2	BILL No.17.2 - LIGHTING INSTALLATION	
3	BILL No.17.3: SMALL POWER INSTALLATION	
4	TOTAL FOR BILL No.17	

BILL NO. 09  BLOCK 15 - HOSTEL ADMINISTRATION
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# BLOCK 15 - HOSTEL ADMIN SUBJECT : BILL OF QUANTITIES

### BILL No.18.1 - DISTRIBUTION BOARDS

			CIT	IFNIJE	K VALUE
ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	Supply, Install, test and commision Sub-distribution boards - surface mounted				
	distribution board cupboards, c/w all switchgear and breakers indicated on the				
	drawings				
18.1.1	DB-15	No	1		
18.1.2	Lable all circuits and install signage to the panels	sum	1		
10.1.2	Lable all circuits and install signage to the panels	Suili	'		
18.1.3	Certificate of Compliance	sum	1		
TOTAL	BILL CARRIED FORWARD TO TENDER SUMMARY	<u> </u>			
	( 15 - HOSTEL ADMIN				

### **BILL No.18.2 - LIGHTING INSTALLATION**

	DECORPTION	UNIT	QTY		R VALUE		
ITEM	DESCRIPTION			RATE	AMOUNT		
	WIREWAIS						
	Supply and Install Trunking						
18.2.1	Supply and install P8300 trunking suspended from slab and trusses in ceiling void.						
	Supply and delivery	Meter	150				
18.2.1.2	Installation	Meter	150				
	Cumply delivery and installation of DVC conduits gurface mounted in calling vaids and						
	Supply, delivery and installation of PVC conduits, surface mounted in ceiling voids and fixed to walls or cast-in or built into walls, including all fixing materials, bends,						
	terminations, draw boxes, etc.						
18.2.2	20mm diameter						
18.2.2.1	Supply and delivery	Meter	200				
18.2.2.2	Installation	Meter	200				
	Supply, delivery and installation of Conduit outlets boxes c/w locknuts and bushes built	-					
18.2.3	into brick or cast into concrete or surface mounted 100 x 50 x 50 mm						
	Supply and delivery	No	16				
	Installation	No	16				
	65mm round box	110	10				
18.2.4.1	Supply and delivery	No	20				
	Installation	No	20				
	ACCESSORIES						
18.2.5	Cumply and Install accessories to have						
	Supply and Install accessories to boxes 5A, 3-pin socket outlets to trunking	No	10				
	16Amp one lever one way light switch	No	Rate		Rate Only		
	16Amp one lever two way light switch	No	Rate		Rate Only		
	16Amp two lever one way light switch	No	Rate		Rate Only		
18.2.5.5	16Amp two lever two way light switch	No	Rate		Rate Only		
	Photocell	No	1				
18.2.5.7	Ceiling mounted occupancy sensor	No	11				
	WIRING AND TERMINALS						
18.2.6	Supply, Deliver and installation of Cu Conductors:						
	4mm² PVC insulated conductor						
	Supply and delivery	Meter	Rate		Rate Only		
	Installation	Meter	Rate		Rate Only		
18.2.6.2	2,5mm² PVC insulated conductor						
	Supply and delivery	Meter	Rate		Rate Only		
10 2 6 2	Installation	Meter	Rate		Rate Only		
10.2.0.3	2,5mm² Heat resistant conductor Supply and delivery	Meter	Rate		Rate Only		
	Installation	Meter	Rate		Rate Only		
18.2.6.4	2,5mm² bare copper earth wire				,		
	Supply and delivery	Meter	Rate		Rate Only		
	Installation	Meter	Rate		Rate Only		
18.2.6.5	1.5mm² surfix twin and earth						
	Supply and delivery	Meter	220				
	Installation	Meter	220				
	OTAL FOR THIS PAGE CARRIED FORWARD						
DILL N	BILL No.18.2 - LIGHTING INSTALLATION						

		UNIT	QTY		R VALUE
TEM	DESCRIPTION			RATE	AMOUNT
SUB-					
	LIGHT FITTINGS				
18.2.7	Supply, deliver, install, connect, test and commissioning the following light fittings				
18.2.7.1	TYPE F01 - 1200mm, 20W surface mounted LED batten light fitting with rolled mild steel body and a white epoxy powder coated finish	No	32		
18.2.7.2	TYPE C1 - 83mm diameter LED downlight ceiling recessed Die-cast aluminium body with acrylic lens(8w cool white)	No	4		
18.2.7.3	TYPE F02 - 1200mm, 30W surface mounted LED vapor proof light fitting with self-extinguishing polycarbonate body	No	20		
18.2.7.4	TYPE W1 - Wall mounted bulkhead LED light fitting with LM6 die cast and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp	No	3		
	BILL CARRIED FORWARD TO TENDER SUMMARY K 15 - HOSTEL ADMIN	_1	l	I	
	ECT : BILL OF QUANTITIES				

### **BILL No.18.3: SMALL POWER INSTALLATION**

	DESCRIPTION	UNIT	QTY		R VALUE
ITEM	DESCRIPTION			RATE	AMOUNT
	WIREWAYS				
	Supply, delivery and installation of PVC conduits, surface mounted in ceiling voids and				
	fixed to walls or cast-in or built into walls, including all fixing materials, bends, terminations, draw boxes, etc.				
18.3.1	20mm diameter				
18.3.1.1	Supply and delivery	Meter	200		
18.3.1.2	Installation	Meter	200		
18.3.2	Supply and install conduit droppers chased or built into wall, consisting of 3 x 25mm				
	dia & 2 x 20mm dia from wire basket & trunking in ceiling void to power skirting c/w				
	1.6mm draw wires	No	30		
	Cumply, delivery and installation of Conduit authors have a given and hyphon built				
	Supply, delivery and installation of Conduit outlets boxes c/w locknuts and bushes built into brick or cast into concrete or surface mounted, c/w applicable cover				
18.3.3	100 x 100 x 50 mm				
18.3.3.1	Supply and delivery	No	15		
18.3.3.2	Installation	No	15		
	Re-Arrange the 3 compartment, two cover Midland power skirting complete with all				
	accessories including internal/external bends, end caps etc.				
18.3.4	as per first floor drawing	Meter	40		
40.05					
18.3.5	Supply, delivery and installation of 3UA type floorbox outlets (Cabstrut or similar), c/w carpet frame and lid, including the removal of the polestyrene from concrete.	No	Rate		Rate Only
	carpet frame and fig. including the femoval of the polestyrene from concrete.	140	rate		reace Offiny
	ACCESSORIES				
	Ourante dell'error en d'estallation et en det entitet				
18.3.6	Supply, delivery and installation of socket outlets  16 A, 3-pin standard white SSO plus triple slimline 16A type 164-2				
	Flush Mounted in wall box	No	15		
	Mounted in floorbox	No	Rate		Rate Only
	Surface mounted	No	Rate		Rate Only
18.3.6.4	Power skirting mounted	No	11		
18.3.7	16 A, 3-pin double white SSO				
18.3.7.1	Flush Mounted	No	Rate		Rate Only
18.3.7.2	Surface mounted	No	Rate		Rate Only
18.3.8	16 A, 3-pin dedicated red SSO				
	Flush Mounted in 100 X 100 (HVAC)	No	Rate		Rate Only
18.3.8.2	Mounted in floorbox	No	Rate		Rate Only
18.3.8.3	Power skirting mounted, 45 degree (including plug top)	No	11		
	WIRING AND TERMINALS				
	WIKING AND TERMINALS				
18.3.9	Supply, Deliver and installation of Cu Conductors:				
18.3.9.1	2.5mm² PVC insulated conductor				
	Supply and delivery Installation	Meter	220 220		
18.3.9.2	4mm² PVC insulated conductor	Meter	220		
	Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
18.3.9.3	4mm² 4 core Surfix (For HVAC)		Б.		5 . 6 .
	Supply and delivery Installation	Meter Meter	Rate Rate		Rate Only Rate Only
18.3.9.4	2.5mm² PVC insulated earth	IVICIO	Rate		reace Offiny
	Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
18.3.9.5	1.5mm² bare copper earth wire	Motor	110		
	Supply and delivery Installation	Meter Meter	110 100		
TOTAL	BILL CARRIED FORWARD TO TENDER SUMMARY				

**BLOCK 15 - HOSTEL ADMIN** 

SUBJECT: BILL OF QUANTITIES

ITEM	DESCRIPTION	TENDER AMOUNT
1	BILL No.18.1 - DISTRIBUTION BOARDS	
2	BILL No.18.2 - LIGHTING INSTALLATION	
3	BILL No.18.3: SMALL POWER INSTALLATION	
4	TOTAL FOR BILL No.18	

BILL NO. 10	
BLOCK 16 - STAFF HOUSE	

# BLOCK 16 - STAFF HOUSE SUBJECT : BILL OF QUANTITIES

### BILL No.19.1 - DISTRIBUTION BOARDS

ITEM	DESCRIPTION	UNIT	QTY	TENDE!	AMOUNT
I I CIVI	Supply, Install, test and commision Sub-distribution boards - surface mounted			KAIL	AWOUNT
	distribution board cupboards, c/w all switchgear and breakers indicated on the				
	drawings				
19.1.1	DB-16	No	1		
19.1.2	Lable all circuits and install signage to the panels	sum	1		
19.1.3	Certificate of Compliance	sum	1		
	Solutions of Compilation	Juni	•		
<b>TO</b>	DILL CARRIED FORWARD TO TEMPER CONTROL	lder		<u> </u>	
	BILL CARRIED FORWARD TO TENDER SUMMARY				

**BLOCK 16 - STAFF HOUSE** 

### **BILL No.19.2 - LIGHTING INSTALLATION**

		UNIT	QTY		R VALUE
ITEM	DESCRIPTION			RATE	AMOUNT
	Supply and Install Trunking Supply and install P8300 trunking suspended from slab and trusses in ceiling void. Supply and delivery Installation	Meter Meter	Rate Rate		Rate Only Rate Only
19.2.2	Supply, delivery and installation of PVC conduits, surface mounted in ceiling voids and fixed to walls or cast-in or built into walls, including all fixing materials, bends, terminations, draw boxes, etc.  20mm diameter				
	Supply and delivery Installation  Supply, delivery and installation of Conduit outlets boxes c/w locknuts and bushes built into brick or cast into concrete or surface mounted	Meter Meter	200 200		
19.2.3.2	100 x 50 x 50 mm Supply and delivery Installation 65mm round box	No No	26 26		
19.2.4.1	Supply and delivery Installation  ACCESSORIES	No No	40 40		
19.2.5.1 19.2.5.2 19.2.5.3 19.2.5.4 19.2.5.5 19.2.5.6	Supply and Install accessories to boxes 5A, 3-pin socket outlets to trunking 16Amp one lever one way light switch 16Amp one lever two way light switch 16Amp two lever one way light switch 16Amp two lever two way light switch 16Amp three lever one way light switch Photocell  WIRING AND TERMINALS	No No No No No No	Rate 18 Rate Rate Rate 2 1		Rate Only  Rate Only  Rate Only  Rate Only
	Supply, Deliver and installation of Cu Conductors:  4mm² PVC insulated conductor  Supply and delivery  Installation  2.5mm² PVC insulated conductor	Meter Meter	Rate Rate		Rate Only Rate Only
	Supply and delivery Installation 2,5mm² Heat resistant conductor	Meter Meter	Rate Rate		Rate Only Rate Only
	Supply and delivery Installation 2,5mm² bare copper earth wire	Meter Meter	Rate Rate		Rate Only Rate Only
	Supply and delivery Installation 1.5mm² surfix twin and earth	Meter Meter	Rate Rate		Rate Only Rate Only
	Supply and delivery Installation	Meter Meter	200 200		
SUB-T	OTAL FOR THIS PAGE CARRIED FORWARD				

BILL No.19.2 - LIGHTING INSTALLATION

SUB-TOTAL FROM PREVIOUS PAGE    LIGHT FITTINGS     Supply, deliver, install, connect, test and commissioning the following light fittings.   TYPE C1 - 83mm diameter LED downlight ceiling recessed Die-cast aluminium body with acrylic lens(6w cool white)   192.72   TYPE F02 - 1200mm, 30W surface mounted LED vapor proof light fitting with self-extinguishing polycarbonate body   192.73   TYPE P1 - 127mm diameter ,21W Adjustable-angle LED downlight fitting with die-cast     No   28     192.73   TYPE P1 - 127mm diameter ,21W Adjustable-angle LED downlight fitting with die-cast     No   28     No   28     No   28     No   29     No   20	TEM	DESCRIPTION	UNIT	QTY	TENDE!	R VALUE AMOUNT
LIGHT FITTINGS  Supply, deliver, install, connect, test and commissioning the following light fittings.  192.73. TVPE C0 1- 83mm diameter LED downlight ceiling recessed Die-cast aluminium body. No 6 with acrylic long(liw cool white).  192.73. TVPE F02 - 1200mm, 30W surface mounted LED vapor proof light fitting with self-extinguishing polycarbonate body.  192.73. TVPE P1 - 127mm diameter .21W Adjustable-angle LED downlight fitting with die-cast. No 28 aluminium bod.  192.73. TVPE P1 - 127mm diameter .21W Adjustable-angle LED downlight fitting with die-cast. No 28 aluminium bod.						
Supply, deliver, install, connect, test and commissioning the following light fittings.  192.71 TYPE C1 - 83mm diameter LED downlight ceiling recessed Die-cast aluminium body with acrylic lens(8w cool white)  192.72 TYPE F02 - 1200mm, 30W surface mounted LED vapor proof light fitting with self-exiting withing polycurborate body  192.73 TYPE P1 - 127mm diameter ,21W Adjustable-angle LED downlight fitting with die-cast aluminium bod  28 aluminium bod  192.74 BILL CARRIED FORWARD TO TENDER SUMMARY						
19-27-1 TYPE C1 - 83mm diameter LED downlight celling recessed Die-cast aluminium body with acytic lens(8w cool white)  No 6  19-27-2 TYPE F02 - 1200mm, 30W surface mounted LED vapor proof light fitting with self-exitinguishing polycarbonate body  TYPE P1 - 127mm diameter ,21W Adjustable-angle LED downlight fitting with die-cast aluminium bod  19-27-3 aluminium bod  10-28  10-2		LIGHT FITTINGS				
trotal bill Carried Forward to Tender Summary	19.2.7					
extinguishing polycarbonate body  19.27.3 TYPE P1 - 127mm diameter ,21W Adjustable-angle LED downlight fitting with die-cast aluminium bod  28 aluminium bod  28 aluminium bod  10 aluminium bod	19.2.7.1	TYPE C1 - 83mm diameter LED downlight ceiling recessed Die-cast aluminium body with acrylic lens(8w cool white)	No	6		
aluminium bod	19.2.7.2	TYPE F02 - 1200mm, 30W surface mounted LED vapor proof light fitting with self- extinguishing polycarbonate body	No	2		
	19.2.7.3	TYPE P1 - 127mm diameter ,21W Adjustable-angle LED downlight fitting with die-cast aluminium bod	No	28		
		DILL CARRIED FORWARD TO TENERS CHAMBEL				
SUBJECT: BILL OF QUANTITIES	BLOC	K 16 - STAFF HOUSE				

### **BILL No.19.3: SMALL POWER INSTALLATION**

		UNIT	QTY		R VALUE
ITEM	DESCRIPTION			RATE	AMOUNT
	WIREWAYS				
	Miletrato				
	Supply, delivery and installation of PVC conduits, surface mounted in ceiling voids and				
	fixed to walls or cast-in or built into walls, including all fixing materials, bends,				
19.3.1	terminations, draw boxes, etc. 20mm diameter				
19.3.1	Supply and delivery	Meter	200		
19.3.1.2		Meter	200		
	modulation		200		
19.3.2	Supply and install conduit droppers chased or built into wall, consisting of 3 x 25mm				
	dia & 2 x 20mm dia from wire basket & trunking in ceiling void to power skirting c/w				
	1.6mm draw wires	No	26		
	Supply, delivery and installation of Conduit outlets boxes c/w locknuts and bushes built				
	into brick or cast into concrete or surface mounted, c/w applicable cover				
19.3.3	100 x 100 x 50 mm				
19.3.3.1	Supply and delivery	No	26		
19.3.3.2	Installation	No	26		
	ACCESSORIES				
	ACCESSORIES				
	Supply, delivery and installation of socket outlets				
19.3.4	16 A, 3-pin standard white SSO plus triple slimline 16A type 164-2				
	Flush Mounted in wall box	No	28		
	Mounted in floorbox	No	Rate		Rate Only
	Surface mounted Power skirting mounted	No No	Rate Rate		Rate Only Rate Only
13.3.4.4	Fower Skirting mounted	NO	Nate		Rate Offig
19.3.5	16 A, 3-pin double white SSO				
19.3.5.1	Flush Mounted	No	Rate		Rate Only
19.3.5.2	Surface mounted	No	Rate		Rate Only
19.3.6	46 A 2 nin dadicated and CCO				
	16 A, 3-pin dedicated red SSO Flush Mounted in 100 X 100 (HVAC)	No	Rate		Rate Only
	Mounted in floorbox	No	Rate		Rate Only
	Power skirting mounted, 45 degree (including plug top)	No	Rate		Rate Only
	WIRING AND TERMINALS				
19.3.7	Supply, Deliver and installation of Cu Conductors:				
l l	2.5mm² PVC insulated conductor				
	Supply and delivery	Meter	200		
	Installation	Meter	200		
19.3.7.2	4mm² PVC insulated conductor		_		
	Supply and delivery	Meter	Rate		Rate Only
19373	Installation 4mm² 4 core Surfix (For HVAC)	Meter	Rate		Rate Only
10.0.1.0	Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
19.3.7.4	2.5mm² PVC insulated earth				,
	Supply and delivery	Meter	Rate		Rate Only
10 2 7 5	Installation	Meter	Rate		Rate Only
19.3.7.5	2.5mm² bare copper earth wire Supply and delivery	Meter	100		
	Installation	Meter	100		
		- 30.			
					ļ
TOTAL	FOR BILL CARRIED FORWARD TO SUMMARY			•	

TOTAL FOR BILL CARRIED FORWARD TO SUMMARY BLOCK 16 - STAFF HOUSE

SUBJECT: BILL OF QUANTITIES

ITEM	DESCRIPTION	TENDER AMOUNT
1	BILL No.19.1 - DISTRIBUTION BOARDS	
2	BILL No.19.2 - LIGHTING INSTALLATION	
3	BILL No.19.3: SMALL POWER INSTALLATION	
4	TOTAL FOR BILL No.19	

	BILL NO. 11	
ВІ	LOCK 17 - STAFF HOUSE	

# BLOCK 17 - STAFF HOUSE SUBJECT : BILL OF QUANTITIES

### BILL No.20.1 - DISTRIBUTION BOARDS

ITEM	DESCRIPTION	UNIT	QTY	TENDE!	AMOUNT
I I CIVI	Supply, Install, test and commision Sub-distribution boards - surface mounted			KAIL	AWOUNT
	distribution board cupboards, c/w all switchgear and breakers indicated on the				
	drawings				
20.1.1	DB-17	No	2		
20.1.2	Lable all circuits and install signage to the panels	sum	1		
20.1.3	Certificate of Compliance	No	2		
	Solutions of Solutions		_		
TO T : :	_ BILL CARRIED FORWARD TO TENDER SUMMARY			<u> </u>	

Moedwil Combined School- 20 - Block 17 - Staff House

**BLOCK 17 - STAFF HOUSE** 

### **BILL No.20.2 - LIGHTING INSTALLATION**

.==	DESCRIPTION	UNIT	QTY		R VALUE
ITEM	DESCRIPTION WIREWAYS			RATE	AMOUNT
	WIREWATS				
	Supply and Install Trunking				
20.2.1	Supply and install P8300 trunking suspended from slab and trusses in ceiling void.				
	Supply and delivery	Meter	Rate		Rate Only
20.2.1.2	Installation	Meter	Rate		Rate Only
	Supply, delivery and installation of PVC conduits, surface mounted in ceiling voids and fixed to walls or cast-in or built into walls, including all fixing materials, bends,				
	terminations, draw boxes, etc.				
20.2.2	20mm diameter				
20.2.2.1	Supply and delivery	Meter	200		
	Installation	Meter	200		
	Supply, delivery and installation of Conduit outlets boxes c/w locknuts and bushes built				
20.2.3	into brick or cast into concrete or surface mounted				
l l	100 x 50 x 50 mm Supply and delivery	No	26		
	Installation	No	26		
	65mm round box	110	20		
	Supply and delivery	No	40		
	Installation	No	40		
	ACCESSORIES				
20.2.5	Comples and Install accessories to become				
	Supply and Install accessories to boxes 5A, 3-pin socket outlets to trunking	No	Rate		Rate Only
	16Amp one lever one way light switch	No	18		Rate Offig
	16Amp one lever two way light switch	No	Rate		Rate Only
20.2.5.4	16Amp two lever one way light switch	No	Rate		Rate Only
20.2.5.5	16Amp two lever two way light switch	No	Rate		Rate Only
	16Amp three lever one way light switch	No	2		
20.2.5.7	Photocell	No	1		
	WIRING AND TERMINALS				
20.2.6	Supply, Deliver and installation of Cu Conductors:				
20.2.6.1	4mm² PVC insulated conductor				
	Supply and delivery	Meter	Rate		Rate Only
20.26.2	Installation	Meter	Rate		Rate Only
20.2.0.2	2,5mm² PVC insulated conductor Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
20.2.6.3	2,5mm² Heat resistant conductor	Wiotoi	rtato		
	Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
20.2.6.4	2,5mm² bare copper earth wire		_		
	Supply and delivery	Meter	Rate		Rate Only
20 2 6 5	Installation 1.5mm² surfix twin and earth	Meter	Rate		Rate Only
20.2.0.5	Supply and delivery	Meter	200		
	Installation	Meter	200		
CLID T	OTAL FOR THIS DAGE CARRIED FORWARD			]	
	OTAL FOR THIS PAGE CARRIED FORWARD  Io.20.2 - LIGHTING INSTALLATION				
DILL I	10.20.2 - LIGHTING INSTALLATION				

ITEM	DESCRIPTION	UNIT	QTY	TENDE RATE	R VALUE AMOUNT
	OTAL FROM PREVIOUS PAGE				
	LIGHT FITTINGS				
20.2.7	Supply, deliver, install, connect, test and commissioning the following light fittings				
20.2.7.1	TYPE C1 - 83mm diameter LED downlight ceiling recessed Die-cast aluminium body with acrylic lens(8w cool white)	No	6		
20.2.7.2	TYPE F02 - 1200mm, 30W surface mounted LED vapor proof light fitting with self-extinguishing polycarbonate body	No	2		
20.2.7.3	TYPE P1 - 127mm diameter ,21W Adjustable-angle LED downlight fitting with die-cast aluminium bod	No	28		
TOT 4:	DILL CARRIED FORWARD TO TEMPER CURAMARY				
BLOC	BILL CARRIED FORWARD TO TENDER SUMMARY K 17 - STAFF HOUSE				
SUBJI	ECT : BILL OF QUANTITIES				

### **BILL No.20.3: SMALL POWER INSTALLATION**

		UNIT	QTY		R VALUE
ITEM	DESCRIPTION			RATE	AMOUNT
	WIREWAYS				
	Supply, delivery and installation of PVC conduits, surface mounted in ceiling voids and				
	fixed to walls or cast-in or built into walls, including all fixing materials, bends,				
20.3.1	terminations, draw boxes, etc. 20mm diameter				
20.3.1.1	Supply and delivery	Meter	200		
20.3.1.2	Installation	Meter	200		
20.3.2	Complete and install conduit durantees about a built into well consisting of 2 a 25-ray				
20.3.2	Supply and install conduit droppers chased or built into wall, consisting of 3 x 25mm dia & 2 x 20mm dia from wire basket & trunking in ceiling void to power skirting c/w				
	1.6mm draw wires	No	26		
	Supply, delivery and installation of Conduit outlets boxes c/w locknuts and bushes built				
20.3.3	into brick or cast into concrete or surface mounted, c/w applicable cover 100 x 100 x 50 mm				
20.3.3.1	Supply and delivery	No	26		
20.3.3.2	Installation	No	26		
	ACCESSORIES				
	7.60=335/N=3				
	Supply, delivery and installation of socket outlets				
20.3.4	16 A, 3-pin standard white SSO plus triple slimline 16A type 164-2 Flush Mounted in wall box	No	28		
	Mounted in floorbox	No	∠o Rate		Rate Only
I .	Surface mounted	No	Rate		Rate Only
20.3.4.4	Power skirting mounted	No	Rate		Rate Only
20.3.5	16 A, 3-pin double white SSO				
	Flush Mounted	No	Rate		Rate Only
20.3.5.2	Surface mounted	No	Rate		Rate Only
20.3.6	16 A 3 pin dedicated red CCO				
	16 A, 3-pin dedicated red SSO Flush Mounted in 100 X 100 (HVAC)	No	Rate		Rate Only
	Mounted in floorbox	No	Rate		Rate Only
20.3.6.3	Power skirting mounted, 45 degree (including plug top)	No	Rate		Rate Only
	WIRING AND TERMINALS				
20.3.7	Supply, Deliver and installation of Cu Conductors:				
	2.5mm² PVC insulated conductor				
	Supply and delivery	Meter	200		
00 0 7 0	Installation	Meter	200		
20.3.7.2	4mm² PVC insulated conductor Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
20.3.7.3	4mm² 4 core Surfix (For HVAC)				,
	Supply and delivery	Meter	Rate		Rate Only
20 3 7 4	Installation 2.5mm² PVC insulated earth	Meter	Rate		Rate Only
20.5.7.4	Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
20.3.7.5	2.5mm² bare copper earth wire				
	Supply and delivery Installation	Meter Meter	100 100		
	n StanauUT	INICIEI	100		
TOTAL	FOR BILL CARRIED FORWARD TO SUMMARY			<u> </u>	

TOTAL FOR BILL CARRIED FORWARD TO SUMMARY BLOCK 17 - STAFF HOUSE

SUBJECT: BILL OF QUANTITIES

ITEM	DESCRIPTION	TENDER
1	BILL No.20.1 - DISTRIBUTION BOARDS	
2	BILL No.20.2 - LIGHTING INSTALLATION	
3	BILL No.20.3: SMALL POWER INSTALLATION	
4	TOTAL FOR BILL No.20	

BILL NO. 12	
BLOCK 18 - STAFF HOUSE	

# BLOCK 18 - STAFF HOUSE SUBJECT : BILL OF QUANTITIES

### BILL No.21.1 - DISTRIBUTION BOARDS

Supply, Install, lest and commision Sub-distribution boards - surface mounted distribution board cupboards, c/w all switchgear and breakers indicated on the drawing.  21:1.1 DB-18 21:1.2 Lable all circuits and install signage to the panels 21:1.3 Certificate of Compliance  No 2  Total Bill. Carried Forward To Tender Summary  BLOCK 18. STAFF HOUSE			UNIT	QTY	TENDE	R VALUE
Supply, Install, test and commission Sub-distribution boards - surface mounted distribution board cupboards, c'w all switchgear and breakers indicated on the drawings  21.1.1  DB-18  Lable all circuits and install signage to the panels  Certificate of Compliance  No 2  Certificate of Compliance  TOTAL BILL CARRIED FORWARD TO TENDER SUMMARY	ITEM	DESCRIPTION	5.4.1	<u> </u>	RATE	AMOUNT
drawings 21.1.1 DB-18 No 2 21.1.2 Lable all circuits and install signage to the panels 21.1.3 Certificate of Compliance No 2 21.1.4 Certificate of Compliance No 2  TOTAL BILL CARRIED FORWARD TO TENDER SUMMARY		Supply, Install, test and commision Sub-distribution boards - surface mounted				
2:1.2 Lable all circuits and install signage to the panels  2:1.3 Certificate of Compliance  No 2  TOTAL BILL CARRIED FORWARD TO TENDER SUMMARY		distribution board cupboards, c/w all switchgear and breakers indicated on the drawings				
25.1.3 Certificate of Compliance No 2  Total Bill Carried Forward to Tender Summary	21.1.1	DB-18	No	2		
TOTAL BILL CARRIED FORWARD TO TENDER SUMMARY	21.1.2	Lable all circuits and install signage to the panels	sum	1		
TOTAL BILL CARRIED FORWARD TO TENDER SUMMARY BLOCK 18 - STAFF HOUSE	21.1.3	Certificate of Compliance	No	2		
TOTAL BILL CARRIED FORWARD TO TENDER SUMMARY BLOCK 18 - STAFF HOUSE						
TOTAL BILL CARRIED FORWARD TO TENDER SUMMARY BLOCK 18 - STAFF HOUSE						
TOTAL BILL CARRIED FORWARD TO TENDER SUMMARY BLOCK 18 - STAFF HOUSE						
TOTAL BILL CARRIED FORWARD TO TENDER SUMMARY BLOCK 18 - STAFF HOUSE						
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TOTAL BILL CARRIED FORWARD TO TENDER SUMMARY BLOCK 18 - STAFF HOUSE						
TOTAL BILL CARRIED FORWARD TO TENDER SUMMARY BLOCK 18 - STAFF HOUSE						
	TOTA	L BILL CARRIED FORWARD TO TENDER SUMMARY K 18 - STAFF HOUSE				

### **BILL No.21.2 - LIGHTING INSTALLATION**

17714	DECORPTION	UNIT	QTY		R VALUE
ITEM	DESCRIPTION			RATE	AMOUNT
	WIREWAIS				
	Supply and Install Trunking				
21.2.1	Supply and install P8300 trunking suspended from slab and trusses in ceiling void.				
21.2.1.1	Supply and delivery	Meter	Rate		Rate Only
21.2.1.2	Installation	Meter	Rate		Rate Only
	Supply, delivery and installation of PVC conduits, surface mounted in ceiling voids and				
	fixed to walls or cast-in or built into walls, including all fixing materials, bends, terminations, draw boxes, etc.				
21.2.2	20mm diameter				
1	Supply and delivery	Meter	200		
	Installation	Meter	200		
	Supply, delivery and installation of Conduit outlets boxes c/w locknuts and bushes built				
	into brick or cast into concrete or surface mounted				
21.2.3	100 x 50 x 50 mm				
	Supply and delivery	No	26		
	Installation	No	26		
	65mm round box Supply and delivery	No	40		
	Installation	No	40		
	Thousand The Control of the Control	110	70		
	ACCESSORIES				
21.2.5	Supply and Install accessories to boxes				
	5A, 3-pin socket outlets to trunking	No	Rate		Rate Only
	16Amp one lever one way light switch	No	_18		
21.2.5.3	16Amp one lever two way light switch	No	Rate		Rate Only
21.2.5.4	16Amp two lever one way light switch 16Amp two lever two way light switch	No No	Rate		Rate Only Rate Only
	16Amp three lever one way light switch	No	Rate 2		Rate Offig
21.2.5.7	Photocell	No	1		
	11000011	110			
	WIRING AND TERMINALS				
	Supply, Deliver and installation of Cu Conductors:				
21.2.6.1	4mm² PVC insulated conductor	Motor	Doto		Poto Only
	Supply and delivery Installation	Meter Meter	Rate Rate		Rate Only Rate Only
21.2.6.2	2,5mm² PVC insulated conductor	Meter	Nate		Nate Only
	Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
21.2.6.3	2,5mm <sup>2</sup> Heat resistant conductor				-
	Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
	2,5mm² bare copper earth wire				
	Supply and delivery Installation	Meter	Rate		Rate Only Rate Only
21 2 6 5	1.5mm² surfix twin and earth	Meter	Rate		Rate Only
21.2.0.5	Supply and delivery	Meter	200		
	Installation	Meter	200		
	THOUGHAND!	Wiotoi	200		
	OTAL FOR THIS PAGE CARRIED FORWARD				
RILL V	lo.21.2 - LIGHTING INSTALLATION				

TEM	DESCRIPTION	UNIT	QTY	TENDE RATE	R VALUE AMOUNT
				KAIL	AWOUNT
SUB-T	OTAL FROM PREVIOUS PAGE				
	LIGHT FITTINGS				
21.2.7	Supply, deliver, install, connect, test and commissioning the following light fittings				
21.2.7.1	TYPE C1 - 83mm diameter LED downlight ceiling recessed Die-cast aluminium body with acrylic lens(8w cool white)	No	6		
21.2.7.2	TYPE F02 - 1200mm, 30W surface mounted LED vapor proof light fitting with self-extinguishing polycarbonate body	No	2		
21.2.7.3	TYPE P1 - 127mm diameter ,21W Adjustable-angle LED downlight fitting with die-cast aluminium bod	No	28		
ΟΤΔΙ	L BILL CARRIED FORWARD TO TENDER SUMMARY			<u> </u>	

BLOCK 18 - STAFF HOUSE SUBJECT : BILL OF QUANTITIES

### **BILL No.21.3: SMALL POWER INSTALLATION**

		UNIT	QTY		R VALUE
ITEM	DESCRIPTION			RATE	AMOUNT
	WIREWAYS				
	MILENAIO				
	Supply, delivery and installation of PVC conduits, surface mounted in ceiling voids and				
	fixed to walls or cast-in or built into walls, including all fixing materials, bends,				
21.3.1	terminations, draw boxes, etc. 20mm diameter				
21.3.1	Supply and delivery	Meter	200		
21.3.2.2	Installation	Meter	200		
21.3.2	Supply and install conduit droppers chased or built into wall, consisting of 3 x 25mm				
	dia & 2 x 20mm dia from wire basket & trunking in ceiling void to power skirting c/w	١ ا			
	1.6mm draw wires	No	26		
	Supply, delivery and installation of Conduit outlets boxes c/w locknuts and bushes built				
	into brick or cast into concrete or surface mounted, c/w applicable cover				
21.3.3	100 x 100 x 50 mm				
21.3.3.1	Supply and delivery	No	26		
21.3.3.2	Installation	No	26		
	ACCESSORIES				
21.3.4	Supply, delivery and installation of socket outlets				
	16 A, 3-pin standard white SSO plus triple slimline 16A type 164-2 Flush Mounted in wall box	No	28		
	Mounted in floorbox	No	Rate		Rate Only
21.3.4.3	Surface mounted	No	Rate		Rate Only
21.3.4.4	Power skirting mounted	No	Rate		Rate Only
21.3.5	16 A, 3-pin double white SSO				
	Flush Mounted	No	Rate		Rate Only
	Surface mounted	No	Rate		Rate Only
21.3.6	16 A, 3-pin dedicated red SSO	N	Data		Data Oak
	Flush Mounted in 100 X 100 (HVAC) Mounted in floorbox	No No	Rate Rate		Rate Only Rate Only
	Power skirting mounted, 45 degree (including plug top)	No	Rate		Rate Only
	31 - 3				,
	WIRING AND TERMINALS				
21.3.7	Supply, Deliver and installation of Cu Conductors:				
	2.5mm² PVC insulated conductor				
	Supply and delivery	Meter	200		
	Installation	Meter	200		
21.3.7.2	4mm² PVC insulated conductor	Matar	Doto		Data Only
	Supply and delivery Installation	Meter Meter	Rate Rate		Rate Only Rate Only
21.3.7.3	4mm² 4 core Surfix (For HVAC)	Wictor	rato		rtate of my
	Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
21.3.7.4	2.5mm² PVC insulated earth	Natan	Data		Data Oalu
	Supply and delivery Installation	Meter Meter	Rate Rate		Rate Only Rate Only
21.3.7.5	2.5mm² bare copper earth wire	WICTO	rtato		reace Offiny
	Supply and delivery	Meter	100		
	Installation	Meter	100		
TOTAL	FOR BILL CARRIED FORWARD TO SUMMARY	<u> </u>		1	

TOTAL FOR BILL CARRIED FORWARD TO SUMMARY

MOEDWIL COMBINED SCHOOL - STAFF HOUSE

SUBJECT: BILL OF QUANTITIES

ITEM	DESCRIPTION	TENDER
1	BILL No.21.1 - DISTRIBUTION BOARDS	
2	BILL No.21.2 - LIGHTING INSTALLATION	
3	BILL No.21.3: SMALL POWER INSTALLATION	
4	TOTAL FOR BILL No.21	

BILL NO
---------

# BLOCK 19 - STAFF HOUSE SUBJECT : BILL OF QUANTITIES

### BILL No.22.2 - DISTRIBUTION BOARDS

ITEM	DESCRIPTION	UNIT	QTY	TENDE!	AMOUNT
I I E IVI	Supply, Install, test and commision Sub-distribution boards - surface mounted			KAIL	AWIOUNT
	distribution board cupboards, c/w all switchgear and breakers indicated on the				
	drawings				
22.1.1	DB-19	No	2		
22.1.2	Lable all circuits and install signage to the panels	sum	1		
22.1.3	Certificate of Compliance	No	2		
	BILL CARRIED FORWARD TO TENDER SUMMARY				

Moedwil Combined School- 22 - Block 19 - Staff House

**BLOCK 19 - STAFF HOUSE** 

### **BILL No.22.2 - LIGHTING INSTALLATION**

Supply and install Trunking Supply and install PS300 trunking suspended from slab and trusses in ceiling void. Supply and delivery Supply and deli	ITEM	DESCRIPTION	UNIT	QTY	TENDE RATE	R VALUE AMOUNT
Supply and Install Trunking.  Supply and Install P8300 trunking suspended from slab and trusses in ceiling void.  Supply and install P8300 trunking suspended from slab and trusses in ceiling void.  Supply delivery and installation of PVC conduits, surface mounted in ceiling voids and lixed to valls or cash in or built into walls, including all fixing materials, bends, suspended from slab and delivery installation.  Supply, delivery and installation of Conduit outlets boxes o'w looknuts and bushes built into brids or cash into concrete or surface mounted.  Supply, delivery and installation of Conduit outlets boxes o'w looknuts and bushes built into brids or cash into concrete or surface mounted.  No 40 26 1223 Supply and delivery.  No 40 2224 1 Supply and delivery.  ACCESSORIES  Supply and Install accessories to boxes  Supply and Installation.  ACCESSORIES  Supply and Installation on love trow way light switch.  No 18 Rate Rate Onit Amp one lever one way light switch.  No Rate Rate Onit Amp one lever tow way light switch.  No Rate Rate Onit Amp to lever two way light switch.  No Rate Rate Onit Amp to lever two way light switch.  No Rate Rate Onit Amp to lever two way light switch.  No Rate Rate Onit Amp to lever two way light switch.  No Rate Rate Onit Amp three lever one way light switch.  No Rate Rate Onit Amp three lever one way light switch.  No Rate Rate Onit Amp three lever one way light switch.  No Rate Rate Onit Amp three lever one way light switch.  No Rate Rate Onit Amp three lever one way light switch.  No Rate Rate Onit Amp three lever one way light switch.  No Rate Rate Onit Amp three lever one way light switch.  No Rate Rate Onit Amp three lever one way light switch.  No Rate Rate Onit Amp three lever one way light switch.  No Rate Rate Onit Amp three lever one way light switch.  No Rate Rate Onit Amp three lever one way light switch.  No Rate Rate Onit Amp three lever one way light switch.  No Rate Rate Onit Amp three lever one way light switch.  No Rate Rate Onit Rate Rate Onit Rate Onit Rate Rat	I I E IVI				IVATE	VIAIOOIAI
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222.1.1 Installation  Supply, delivery and installation of PVC conduits, surface mounted in ceiling voids and feed to walls or cast-in or built into walls, including all fixing materials, bends.  Supply, delivery and installation of PVC conduits, surface mounted in ceiling voids and feed to walls or cast-in or built into walls, including all fixing materials, bends.  Supply, delivery and installation of Conduit outlets boxes c/w locknuts and bushes built into brick or cast into concrete or surface mounted  100 x 50 x 50 mm  Supply, delivery and installation of Conduit outlets boxes c/w locknuts and bushes built into brick or cast into concrete or surface mounted  100 x 50 x 50 mm  No 26  Supply and delivery  No 40  ACCESSORIES  Supply and Install accessories to boxes  22.24 installation  ACCESSORIES  Supply and Install accessories to boxes  Supply and Installation of Cu Conductors:  WIRING AND TERMINALS  Supply Deliver and installation of Cu Conductors:  Supply and delivery  Installation  Supply and delivery  Installation  Meter Rate  Rate Online  Rate Rate Online  R		Supply and Install Trunking				
22.21 Installation  Supply, delivery and installation of PVC conduits, surface mounted in ceiling voids and fixed to walls or cast-in or built into walls, including all fixing materials, bends, terminations, draw boxes, etc.  22.22 Zomm diameter  22.22.21 Installation  Supply, delivery and installation of Conduit outlets boxes c/w locknuts and bushes built into brick or cast into concrete or surface mounted  100 x 50 x 50 mm  Supply, delivery and installation of Conduit outlets boxes c/w locknuts and bushes built into brick or cast into concrete or surface mounted  100 x 50 x 50 mm  No 25  Supply and delivery  Installation  ACCESSORIES  Supply and install accessories to boxes  22.25.15 [Apply and tellivery into a conduiter to trunking  ACCESSORIES  Supply and install accessories to boxes  22.25.25 [Apply and levery one lever one way light switch  No 18  Rate Rate Onit (Apply one lever) way light switch  No 24  ACCESSORIES  Supply and levery one way light switch  No Rate Rate Rate Onit (Apply one lever) way light switch  No Rate Rate Onit (Apply one lever) way light switch  No 2 (Apply o		Supply and install P8300 trunking suspended from slab and trusses in ceiling void.				
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Installation   No   26						
### Simprice of the control of the c			_			
Supply and delivery listallation			No	26		
ACCESSORIES  Supply and Install accessories to boxes  \$22.5.1 5A, 3-pin socket outlets to trunking  \$3.4.2.5.1 16Amp one lever flow wyl light switch  \$3.6.2.5.5.1 16Amp one lever two way light switch  \$3.6.2.5.5.1 16Amp one lever two way light switch  \$3.6.2.5.5.1 16Amp one lever two way light switch  \$3.6.2.5.5.1 16Amp two lever one way light switch  \$3.6.2.5.5.1 16Amp two lever one way light switch  \$3.6.2.5.5.1 16Amp two lever one way light switch  \$3.6.2.5.5.1 16Amp two lever one way light switch  \$3.6.2.5.5.1 16Amp two lever one way light switch  \$3.6.2.5.5.1 16Amp two lever two way light switch  \$3.6.2.5.5.1 16Amp two lever two way light switch  \$3.6.2.5.5.1 16Amp two lever two way light switch  \$3.6.2.5.5.1 16Amp two lever two way light switch  \$3.6.2.5.5.1 16Amp two lever two way light switch  \$3.6.2.5.5.1 16Amp two lever two way light switch  \$3.6.2.5.5.1 16Amp two lever two way light switch  \$3.6.2.5.5.1 16Amp two lever two way light switch  \$3.6.2.5.5.1 16Amp two lever two way light switch  \$3.6.2.5.5.1 16Amp two lever two way light switch  \$3.6.5.5.1 16Amp two lights witch  \$3.6.5.5.1 16Amp two lights witch  \$3.6.5.5.1 16Amp two lever two way light switch  \$3.6.5.5.1 16Amp two lights witch  \$3.6.5.5.1 1			No	40		
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16Amp one lever two way light switch   No Rate   Rate Onity			No	Rate		Rate Only
22.2.5.1 fl6Amp two lever noe way light switch 22.2.5.1 fl6Amp two lever two way light switch 22.2.5.1 fl6Amp three lever one way light	22.2.5.2	16Amp one lever one way light switch	_			
Supply   Deliver two way light switch   No   2   22.25.5   16Amp two lever two way light switch   No   2   22.25.7   Photocell   No   1   2   22.25.7	22.2.5.3	16Amp one lever two way light switch	_			
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WIRING AND TERMINALS  22.2.6  WIRING AND TERMINALS  22.2.6.1  Supply. Deliver and installation of Cu Conductors: 4mm² PVC insulated conductor Supply and delivery Installation  22.2.6.2  Supply and delivery Installation  Meter Rate Rate On						Rate Only
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SUB-TOTAL FOR THIS PAGE CARRIED FORWARD						
		Installation	Meter	200		
	SUB-T	OTAL FOR THIS PAGE CARRIED FORWARD				

Moedwil Combined School- 22 - Block 19 - Staff House

ITEM	DESCRIPTION	UNIT	QTY	TENDE!	R VALUE AMOUNT
	OTAL FROM PREVIOUS PAGE	,			
	LIGHT FITTINGS				
22.2.7	Supply, deliver, install, connect, test and commissioning the following light fittings				
22.2.7.1	TYPE C1 - 83mm diameter LED downlight ceiling recessed Die-cast aluminium body with acrylic lens(8w cool white)	No	6		
22.2.7.2	TYPE F02 - 1200mm, 30W surface mounted LED vapor proof light fitting with self- extinguishing polycarbonate body	No	2		
22.2.7.3	TYPE P1 - 127mm diameter ,21W Adjustable-angle LED downlight fitting with die-cast aluminium bod	No	28		
TOT * :	DILL CARRIED FORWARD TO TENDER CHAMARY				
BLOC	BILL CARRIED FORWARD TO TENDER SUMMARY K 19 - STAFF HOUSE				
SUBJI	ECT : BILL OF QUANTITIES				

### **BILL No.23.3: SMALL POWER INSTALLATION**

		UNIT	QTY		R VALUE
ITEM	DESCRIPTION			RATE	AMOUNT
	WIREWAYS				
	TIME TATO				
	Supply, delivery and installation of PVC conduits, surface mounted in ceiling voids and				
	fixed to walls or cast-in or built into walls, including all fixing materials, bends,				
22.3.1	terminations, draw boxes, etc. 20mm diameter				
22.3.2.1	Supply and delivery	Meter	200		
22.3.2.2	Installation	Meter	200		
22.3.2	Supply and install conduit droppers chased or built into wall, consisting of 3 x 25mm dia & 2 x 20mm dia from wire basket & trunking in ceiling void to power skirting c/w				
	1.6mm draw wires	No	26		
			_0		
	Supply, delivery and installation of Conduit outlets boxes c/w locknuts and bushes built				
22.3.3	into brick or cast into concrete or surface mounted, c/w applicable cover				
22.3.3.1	100 x 100 x 50 mm Supply and delivery	No	26		
22.3.3.2	Installation	No	26		
	40050000150				
	ACCESSORIES				
	Supply, delivery and installation of socket outlets				
	16 A, 3-pin standard white SSO plus triple slimline 16A type 164-2				
	Flush Mounted in wall box	No	28		5 . 6 .
	Mounted in floorbox Surface mounted	No No	Rate Rate		Rate Only Rate Only
	Power skirting mounted	No	Rate		Rate Only
	. ener enumg meantes				
	16 A, 3-pin double white SSO		_		
I .	Flush Mounted Surface mounted	No No	Rate Rate		Rate Only Rate Only
22.5.5.2	Surface mounted	INO	Rate		Rate Offig
22.3.6	16 A, 3-pin dedicated red SSO				
	Flush Mounted in 100 X 100 (HVAC)	No	Rate		Rate Only
	Mounted in floorbox	No	Rate		Rate Only
22.5.0.5	Power skirting mounted, 45 degree (including plug top)	No	Rate		Rate Only
	WIRING AND TERMINALS				
22.3.7	Supply, Deliver and installation of Cu Conductors:				
	2.5mm² PVC insulated conductor				
	Supply and delivery	Meter	200		
22 2 7 2	Installation	Meter	200		
22.3.1.2	4mm² PVC insulated conductor Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
22.3.7.3	4mm² 4 core Surfix (For HVAC)				,
	Supply and delivery	Meter	Rate		Rate Only
22 3 7 4	Installation 2.5mm² PVC insulated earth	Meter	Rate		Rate Only
22.5.7.4	Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
22.3.7.5	2.5mm² bare copper earth wire				
	Supply and delivery Installation	Meter Meter	100 100		
	แระสแสแUT	IVICIEI	100		
<u> </u>					
TOTAL	FOR BILL CARRIED FORWARD TO SUMMARY				

TOTAL FOR BILL CARRIED FORWARD TO SUMMARY

MOEDWIL COMBINED SCHOOL - STAFF HOUSE

SUBJECT: BILL OF QUANTITIES

ITEM	DESCRIPTION	TENDER
1	BILL No.22.2 - DISTRIBUTION BOARDS	
2	BILL No.22.2 - LIGHTING INSTALLATION	
3	BILL No.23.3: SMALL POWER INSTALLATION	
4	TOTAL FOR BILL No.22	

BILL NO. 14	
BLOCK 20 - TV ROOM	

# BLOCK 20 - TV ROOM SUBJECT : BILL OF QUANTITIES

## **BILL No.23.1 - DISTRIBUTION BOARDS**

		UNIT	QTY	TENDE	R VALUE
ITEM	DESCRIPTION	0.411	<b>4</b> 11	RATE	AMOUNT
	Supply, Install, test and commision Sub-distribution boards - surface mounted				
	distribution board cupboards, c/w all switchgear and breakers indicated on the drawings				
	urawings 				
23.1.1	DB-20	No	1		
23.1.2	Lable all circuits and install signage to the panels	sum	1		
		Suiii	'		
23.1.3	Certificate of Compliance	sum	1		
	BILL CARRIED FORWARD TO TENDER SUMMARY				
BLUC	K 20 - TV ROOM				

### **BILL No.23.2 - LIGHTING INSTALLATION**

23.2.1 Si 23.2.1.1 Si 23.2.1.2 In	VIREWAYS  Supply and Install Trunking Supply and install P8300 trunking suspended from slab and trusses in ceiling void. Supply and delivery			RATE	AMOUNT
23.2.1 Si 23.2.1.1 Si 23.2.1.2 In	Supply and Install Trunking Supply and install P8300 trunking suspended from slab and trusses in ceiling void.				I
23.2.1 Si 23.2.1.1 Si 23.2.1.2 In	Supply and install P8300 trunking suspended from slab and trusses in ceiling void.				İ
23.2.1.1 Si 23.2.1.2 In	Supply and install P8300 trunking suspended from slab and trusses in ceiling void.				I
23.2.1.2 In	Supply and delivery				I
		Meter	20		I
l	nstallation	Meter	20		I
					I
	Supply, delivery and installation of PVC conduits, surface mounted in ceiling voids and				I
	ixed to walls or cast-in or built into walls, including all fixing materials, bends, erminations, draw boxes, etc.				I
	Omm diameter				I
-	Supply and delivery	Meter	60		I
	nstallation	Meter	60		I
					İ
	Supply, delivery and installation of Conduit outlets boxes c/w locknuts and bushes built				I
	nto brick or cast into concrete or surface mounted				I
	00 x 50 x 50 mm	NIa	4		I
	Supply and delivery nstallation	No No	4 4		I
	istaliation ismm round box	INO	4		I
	Supply and delivery	No	16		I
	nstallation	No	16		I
					I
A	ACCESSORIES				I
					I
	Supply and Install accessories to boxes				I
	A, 3-pin socket outlets to trunking	No	2		I
	6Amp one lever one way light switch 6Amp one lever two way light switch	No No	2 Rate		Rate Only
23.2.5.4 16	6Amp two lever one way light switch	No	Rate		Rate Only
	6Amp two lever two way light switch	No	Rate		Rate Only
23.2.5.6 PI		No	1		ı
23.2.5.7 C	Ceiling mounted occupancy sensor	No	2		I
	VIRING AND TERMINALS				
VV	VIKING AND TERMINALS				I
23.2.6 Si	Supply, Deliver and installation of Cu Conductors:				I
	mm² PVC insulated conductor				I
S	Supply and delivery	Meter	Rate		Rate Only
1	nstallation	Meter	Rate		Rate Only
	2,5mm <sup>2</sup> PVC insulated conductor		_		1
	Supply and delivery	Meter	Rate		Rate Only
	nstallation 2,5mm² Heat resistant conductor	Meter	Rate		Rate Only
	Supply and delivery	Meter	Rate		Rate Only
	nstallation	Meter	Rate		Rate Only
	2,5mm² bare copper earth wire				ı
	Supply and delivery	Meter	Rate		Rate Only
	nstallation	Meter	Rate		Rate Only
	.5mm <sup>2</sup> surfix twin and earth				İ
	Supply and delivery	Meter	60		İ
In	nstallation	Meter	60		I
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SUB-TO	TAL FOR THIS PAGE CARRIED FORWARD				
	23.2 - LIGHTING INSTALLATION				

Moedwil Combined School- 23 - Block 20 - TV Room

LIGHT FITTINGS Supply, deliver, install, connect, test and commissioning the following light fittings.  17YPE C1 - 83mm diameter LED downlight ceiling recessed Die-cast aluminium body with acrylic lens(8w cool white)  No 4 with acrylic lens(8w cool white)  No 24 steel body and a white popoly powder coated finish  17YPE P2 - 1200mm, 20W surface mounted LED batten light fitting with rolled mild steel body and a white popoly powder coated finish  17YPE P2 - Wall mounted LED light fitting with LM6 die cast and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp - Emergency type with backup power  122.7.4 TYPE W1 - Wall mounted bukhead LED light fitting with LM6 die cast and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp  No 6 aluminium body and opal acrylic diffuser fitted with 17W LED lamp  10TOTAL BILL CARRIED FORWARD TO TENDER SUMMARY  BLOCK 20 - TV ROOM	ITEM	DESCRIPTION	UNIT	QTY	TENDE!	R VALUE AMOUNT
LIGHT FITTINGS  Supply, deliver, install, connect, test and commissioning the following light fittings.  132.72. TYPE C1 - 83mm diameter LED downlight ceiling recessed Die-cast aluminium body with acrylic lens(8w cool white)  No	ITEM				RAIL	AWOONT
Supply, deliver, install, connect, test and commissioning the following light fittings:  17YPE C1 - 83mm diameter LED downlight ceiling recessed Die-cast aluminium body with acrylic lens(8tw cool white)  182.72 TYPE F01 - 1200mm, 20W surface mounted LED batten light fitting with rolled mild steel body and a white epoxy powder costed finish  182.73 TYPE F2 - Wall mounted LED light fitting with LM6 die cast and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp - Emergency type with backup power  17YPE W1 - Wall mounted bulkhead LED light fitting with LM6 die cast and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp  182.73 TYPE W1 - Wall mounted bulkhead LED light fitting with LM6 die cast and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp  182.74 TYPE W1 - Wall mounted bulkhead LED light fitting with LM6 die cast and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp  182.75 TYPE W1 - Wall mounted bulkhead LED light fitting with LM6 die cast and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp  182.75 TYPE W1 - Wall mounted bulkhead LED light fitting with LM6 die cast and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp  182.75 TYPE W1 - Wall mounted bulkhead LED light fitting with LM6 die cast and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp  182.75 TYPE W1 - Wall mounted bulkhead LED light fitting with LM6 die cast and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp  182.75 TYPE W1 - Wall mounted bulkhead LED light fitting with LM6 die cast and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp acrylic diffuser fitted with 17W LED lamp acrylic diffuser fitting with LM6 die cast and extruded aluminium body and opal acrylic diffuser fitting with 17W LED lamp acrylic diffuser fitting with 17W LED lamp acrylic diffuser fitting with 17W LED lamp acrylic diffuser fitting with 17W LED	20B-1	OTAL FROM PREVIOUS PAGE				
123.27.1 TYPE C1 - 83mm diameter LED downlight ceiling recessed Die-cast aluminium body with acrylic lens(8w cool white)  No 24 327.2 TYPE F01 - 1200mm, 20W surface mounted LED batten light fitting with rolled mild steel body and a white epoxy powder coated finish  TYPE F02 - Wall mounted LED light fitting with LM6 die cast and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp - Emergency type with backup power  TYPE W1 - Wall mounted bulkhead LED light fitting with LM6 die cast and extruded aluminium body and opal acrylic diffuser fitted with T7W LED lamp  6 aluminium body and opal acrylic diffuser fitted with T7W LED lamp  TOTAL BILL CARRIED FORWARD TO TENDER SUMMARY BLOCK 20 - TV ROOM		LIGHT FITTINGS				
22.27.2 TYPE F01 - 1200mm, 200 surface mounted LED batten light fitting with rolled mild steel body and a white epoxy powder coated finish  22.27.3 TYPE P2 - Wall mounted LED light fitting with LM6 die cast and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp - Emergency type with backup power  22.27.4 TYPE W1 - Wall mounted bulkhead LED light fitting with LM6 die cast and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp  8 aluminium body and opal acrylic diffuser fitted with 17W LED lamp  10 b down and opal acrylic diffuser fitted with 17W LED lamp  11 b down and opal acrylic diffuser fitted with 17W LED lamp  12 b down and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp  13 b down and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp  14 b down and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp  15 b down and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp  16 b down and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp  17 b down and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp  18 b down and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp  18 b down and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp  18 b down and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp  18 b down and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp  18 b down and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp  18 b down and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp  18 b down and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp  18 b down and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp  18 b down and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp  18 b down and extruded al	23.2.7	Supply, deliver, install, connect, test and commissioning the following light fittings				
steel body and a white epoxy powder coated finish  77PE P2 -Wall mounted LED light fitting with LM6 die cast and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp - Emergency type with backup power  232.7.4 TYPE W1 - Wall mounted bulkhead LED light fitting with LM6 die cast and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp  No 6 aluminium body and opal acrylic diffuser fitted with 17W LED lamp  FOTAL BILL CARRIED FORWARD TO TENDER SUMMARY  BLOCK 20 - TV ROOM	23.2.7.1		No	4		
body and opal acrylic diffuser fitted with 17W LED lamp - Emergency type with backup power  23.27.4 TYPE W1 - Wall mounted bulkhead LED light fitting with LM6 die cast and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp  6 aluminium body and opal acrylic diffuser fitted with 17W LED lamp  7 aluminium body and opal acrylic diffuser fitted with 17W LED lamp	23.2.7.2		No	24		
aluminium body and opal acrylic diffuser fitted with 17W LED lamp  Total bill. Carried Forward to Tender Summary  BLOCK 20 - TV ROOM	23.2.7.3	body and opal acrylic diffuser fitted with 17W LED lamp - Emergency type with backup	No	2		
BLOCK 20 - TV ROOM	23.2.7.4	TYPE W1 - Wall mounted bulkhead LED light fitting with LM6 die cast and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp	No	6		
BLOCK 20 - TV ROOM						
BLOCK 20 - TV ROOM						
BLOCK 20 - TV ROOM						
BLOCK 20 - TV ROOM						
BLOCK 20 - TV ROOM						
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SUBJECT. BILL OF QUANTITIES		K 20 - TV ROOM ECT: BILL OF QUANTITIES				

Moedwil Combined School- 23 - Block 20 - TV Room

### **BILL No.23.3: SMALL POWER INSTALLATION**

		UNIT	QTY		R VALUE
ITEM	DESCRIPTION			RATE	AMOUNT
	MUDELWAYO				
	WIREWAYS				
	Supply, delivery and installation of PVC conduits, surface mounted in ceiling voids and				
	fixed to walls or cast-in or built into walls, including all fixing materials, bends,				
	terminations, draw boxes, etc.				
23.3.1	20mm diameter				
23.3.2.1	Supply and delivery	Meter	Rate		Rate Only
23.3.2.2	Installation	Meter	Rate		Rate Only
23.3.2	Supply and install conduit droppers chased or built into wall, consisting of 3 x 25mm				
	dia & 2 x 20mm dia from wire basket & trunking in ceiling void to power skirting c/w 1.6mm draw wires	No	10		
	1.0mm draw wires	INO	10		
	Supply, delivery and installation of Conduit outlets boxes c/w locknuts and bushes built				
	into brick or cast into concrete or surface mounted, c/w applicable cover				
23.3.3	100 x 100 x 50 mm				
23.3.3.1	Supply and delivery	No	80		
23.3.3.2	Installation	No	80		
	ACCESSORIES				
	ACCESSORIES				
	Supply, delivery and installation of socket outlets				
23.3.4	16 A, 3-pin standard white SSO plus triple slimline 16A type 164-2				
	Flush Mounted in wall box	No	10		
	Mounted in floorbox	No	Rate		Rate Only
	Surface mounted	No	Rate		Rate Only
23.3.4.4	Power skirting mounted	No	Rate		Rate Only
23.3.5	16 A, 3-pin double white SSO				
	Flush Mounted	No	Rate		Rate Only
	Surface mounted	No	Rate		Rate Only
23.3.6	16 A, 3-pin dedicated red SSO				
	Flush Mounted in 100 X 100 (HVAC)	No	Rate		Rate Only
	Mounted in floorbox	No	Rate		Rate Only
23.3.6.3	Power skirting mounted, 45 degree (including plug top)	No	Rate		Rate Only
	WIRING AND TERMINALS				
23.3.7	Supply, Deliver and installation of Cu Conductors:				
	2.5mm² PVC insulated conductor				
	Supply and delivery	Meter	120		
	Installation	Meter	120		
23.3.7.2	4mm² PVC insulated conductor				
	Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
23.3.7.3	4mm² 4 core Surfix (For HVAC)		<b>.</b> .		5 . 6 .
	Supply and delivery	Meter	Rate		Rate Only
23 3 7 4	Installation 2.5mm² PVC insulated earth	Meter	Rate		Rate Only
20.0.7.1	Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
23.3.7.5	1.5mm² bare copper earth wire				
	Supply and delivery	Meter	60		
	Installation	Meter	60		
TOTAL	BILL CARRIED FORWARD TO TENDER SUMMARY			<u> </u>	

TOTAL BILL CARRIED FORWARD TO TENDER SUMMARY

BLOCK 20 - TV ROOM

SUBJECT: BILL OF QUANTITIES

ITEM	DESCRIPTION	TENDER
1	BILL No.23.1 - DISTRIBUTION BOARDS	
2	BILL No.23.2 - LIGHTING INSTALLATION	
3	BILL No.23.3: SMALL POWER INSTALLATION	
4	TOTAL FOR BILL No.23	

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# BLOCK 21 - TYPE 1A HOSTEL SUBJECT : BILL OF QUANTITIES

### BILL No.24.1 - DISTRIBUTION BOARDS

		UNIT	QTY	TENDE	R VALUE AMOUNT
ITEM	DESCRIPTION Supply, Install, test and commision Sub-distribution boards - surface mounted			RATE	AMOUNT
	distribution board cupboards, c/w all switchgear and breakers indicated on the				
	drawings				
24.1.1	DB-21	No	1		
24.1.2	Lable all circuits and install signage to the panels	sum	1		
24.1.3	Certificate of Compliance	sum	1		
	FOR BILL CARRIED FORWARD TO SUMMARY				

**BLOCK 21 - TYPE 1A HOSTEL** 

### **BILL No.24.2 - LIGHTING INSTALLATION**

		UNIT	QTY		R VALUE
ITEM	DESCRIPTION WIREWAYS			RATE	AMOUNT
	WIREWATS				
	Supply and Install Trunking				
24.2.1	Supply and install P8300 trunking suspended from slab and trusses in ceiling void.				
24.2.1.1	Supply and delivery	Meter	120		
24.2.1.2	Installation	Meter	120		
	Supply, delivery and installation of PVC conduits, surface mounted in ceiling voids and				
	fixed to walls or cast-in or built into walls, including all fixing materials, bends,				
	terminations, draw boxes, etc.				
24.2.2	20mm diameter				
24.2.2.1	Supply and delivery	Meter	200		
24.2.2.2	Installation	Meter	200		
	Supply, delivery and installation of Conduit outlets boxes c/w locknuts and bushes built into brick or cast into concrete or surface mounted	-			
24.2.3	100 x 50 x 50 mm				
	Supply and delivery	No	18		
	Installation	No	18		
24.2.4	65mm round box				
	Supply and delivery	No	28		
24.2.4.2	Installation	No	28		
	ACCESSORIES				
24.2.5	Supply and Install accessories to boxes				
	5A, 3-pin socket outlets to trunking	No	10		
24.2.5.2	16Amp one lever one way light switch	No	16		
	16Amp one lever two way light switch	No	2		
	16Amp two lever one way light switch	No	Rate		Rate Only
24.2.5.5	16Amp two lever two way light switch	No	Rate		Rate Only
24.2.5.6	Photocell	No	1		
24.2.5.7	Ceiling mounted occupancy sensor	No	6		
	WIRING AND TERMINALS				
24.2.6	Supply, Deliver and installation of Cu Conductors:				
24.2.6.1	4mm² PVC insulated conductor				
	Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
	2,5mm² PVC insulated conductor		<b>.</b> .		5 . 6 .
	Supply and delivery	Meter	Rate		Rate Only
24 2 6 3	Installation 2,5mm² Heat resistant conductor	Meter	Rate		Rate Only
24.2.0.3	Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
24.2.6.4	2,5mm² bare copper earth wire				
	Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
24.2.6.5	1.5mm² surfix twin and earth				
	Supply and delivery	Meter	230		
	Installation	Meter	230		
SUB-TO	OTAL FOR THIS PAGE CARRIED FORWARD			•	

BILL No.24.2 - LIGHTING INSTALLATION

		UNIT	QTY		R VALUE
ITEM	DESCRIPTION			RATE	AMOUNT
SUB-TO	OTAL FROM PREVIOUS PAGE				
	LIGHT FITTINGS				
24.2.7	Supply, deliver, install, connect, test and commissioning the following light fittings				
24.2.7.1	TYPE F01 - 1200mm, 20W surface mounted LED batten light fitting with rolled mild steel body and a white epoxy powder coated finish	No	2		
24.2.7.2	TYPE C1 - 83mm diameter LED downlight ceiling recessed Die-cast aluminium body with acrylic lens(8w cool white)	No	30		
24.2.7.3	TYPE F02 - 1200mm, 30W surface mounted LED vapor proof light fitting with self-extinguishing polycarbonate body	No	12		
24.2.7.4	TYPE P1 - 127mm diameter ,21W Adjustable-angle LED downlight fitting with die-cast aluminium bod	No	10		
24.2.7.5	TYPE P2 - Ceiling mounted LED light fitting with LM6 die cast and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp - Emergency type with backup power	No	4		
24.2.7.6	TYPE W1 - Wall mounted bulkhead LED light fitting with LM6 die cast and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp	No	4		
24.2.7.7	TYPE D1 - 83mm diameter LED downlight ceiling recessed Die-cast aluminium body with acrylic lens, 6W warm white	No	8		
-	BILL CARRIED FORWARD TO TENDER SUMMARY ( 21 - TYPE 1A HOSTEL			ı	
	CT: BILL OF QUANTITIES				

### **BILL No.24.3: SMALL POWER INSTALLATION**

		UNIT	QTY		R VALUE
ITEM	DESCRIPTION			RATE	AMOUNT
	WIREWAYS				
	Outside dell'estate dell'estate le l'estate de DVO estate l'estate acceptant le service de l'estate l'				
	Supply, delivery and installation of PVC conduits, surface mounted in ceiling voids and fixed to walls or cast-in or built into walls, including all fixing materials, bends,				
	terminations, draw boxes, etc.				
24.3.1	20mm diameter				
24.3.1.1 24.3.1.2	Supply and delivery Installation	Meter Meter	220 220		
24.0.1.2	IIIStaliation	Meter	220		
24.3.2	Supply and install conduit droppers chased or built into wall, consisting of 3 x 25mm				
	dia & 2 x 20mm dia from wire basket & trunking in ceiling void to power skirting c/w	NI.	05		
	1.6mm draw wires	No	25		
	Supply, delivery and installation of Conduit outlets boxes c/w locknuts and bushes built				
	into brick or cast into concrete or surface mounted, c/w applicable cover				
24.3.3 24.3.3.1	100 x 100 x 50 mm	NI-	0.5		
24.3.3.1	Supply and delivery Installation	No No	25 25		
	modification	110	20		
	4.0050000150				
	ACCESSORIES				
	Supply, delivery and installation of socket outlets				
24.3.6	16 A, 3-pin standard white SSO plus triple slimline 16A type 164-2				
24.3.6.1 24.3.6.2	Flush Mounted in wall box Mounted in floorbox	No	20 Data		Data Only
24.3.6.2	Surface mounted	No No	Rate Rate		Rate Only Rate Only
24.3.6.4	Power skirting mounted	No	Rate		Rate Only
0407	40.4.0.1.1.1.1.2.000				
24.3.7 24.3.7.1	16 A, 3-pin double white SSO Flush Mounted	No	Rate		Rate Only
24.3.7.2	Surface mounted	No	Rate		Rate Only
24.3.8 24.3.8.1	16 A, 3-pin dedicated red SSO Flush Mounted in 100 X 100 (HVAC)	No	Rate		Rate Only
24.3.8.2	Mounted in floorbox	No	Rate		Rate Only
24.3.8.3	Power skirting mounted, 45 degree (including plug top)	No	Rate		Rate Only
	WIRING AND TERMINALS				
	WIRING AND TERMINALS				
24.3.9	Supply, Deliver and installation of Cu Conductors:				
24.3.9.1	2.5mm² PVC insulated conductor	N 4 = 4 = 11	250		
	Supply and delivery Installation	Meter Meter	250 250		
24.3.9.2	4mm² PVC insulated conductor	Wictor	200		
	Supply and delivery	Meter	Rate		Rate Only
04000	Installation	Meter	Rate		Rate Only
24.3.9.3	4mm² 4 core Surfix (For HVAC) Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
24.3.9.4	2.5mm² PVC insulated earth				
	Supply and delivery	Meter	Rate		Rate Only
24.3.9.5	Installation 2.5mm² bare copper earth wire	Meter	Rate		Rate Only
	Supply and delivery	Meter	125		
	Installation	Meter	125		
<u></u>					
TOTAL	BILL CARRIED FORWARD TO TENDER SUMMARY				

BLOCK 21 - TYPE 1A HOSTEL SUBJECT : BILL OF QUANTITIES

ITEM	DESCRIPTION	TENDER
1	BILL No.24.1 - DISTRIBUTION BOARDS	
2	BILL No.24.2 - LIGHTING INSTALLATION	
3	BILL No.24.3: SMALL POWER INSTALLATION	
4	TOTAL FOR BILL No.24	

<b>BILL</b>
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# BLOCK 22 - TYPE 1A HOSTEL SUBJECT : BILL OF QUANTITIES

### BILL No.25.1 - DISTRIBUTION BOARDS

Supply, Install, test and commission Sub-distribution boards - surface mounted distribution board cupboards, c/w all switchgear and breakers indicated on the drawing.			UNIT	QTY	TENDE	R VALUE
Supply, Install, test and commission sub-distribution boards - surface mounted distribution board cupboards, c/w all switchgear and breakers indicated on the drawings  25.1.1 DB-22 No 1  25.1.2 Lable all circuits and install signage to the panels sum 1  25.1.3 Certificate of Compliance sum 1  Total For Bill Carried Forward to summary	ITEM	DESCRIPTION	0.411	,	RATE	AMOUNT
drawings  25.1.1 DB-22 No 1  25.1.2 Lable all circuits and install signage to the panels sum 1  25.1.3 Cartificate of Compliance sum 1  Total For Bill Carried Forward to Summary		Supply, Install, test and commision Sub-distribution boards - surface mounted				
25.1.1 DB-22 No 1 25.1.2 Lable all circuits and install signage to the panels sum 1 25.1.3 Certificate of Comptiance sum 1  Total For Bill Carried Forward To Summary		distribution board cupboards, c/w all switchgear and breakers indicated on the				
25.1.2 Lable all circuits and install signage to the panels  25.1.3 Certificate of Compliance  1 1  TOTAL FOR BILL CARRIED FORWARD TO SUMMARY		luiawiiigs				
25.1.3 Certificate of Compliance sum 1  Total For Bill Carried Forward To Summary	25.1.1	DB-22	No	1		
25.1.3 Certificate of Compliance sum 1  Total For Bill Carried Forward To Summary	25.1.2	I able all airquite and install aignoge to the penale	oum.	1		
TOTAL FOR BILL CARRIED FORWARD TO SUMMARY	25.1.2	Lable all circuits and install signage to the panels	sum	1		
	25.1.3	Certificate of Compliance	sum	1		
	TOTAL	I FOR BILL CARRIED FORWARD TO SUMMARY				

### **BILL No.25.2 - LIGHTING INSTALLATION**

		UNIT	QTY		R VALUE
ITEM	DESCRIPTION WIREWAYS			RATE	AMOUNT
	WIREWAIS				
	Supply and Install Trunking				
25.2.1	Supply and install P8300 trunking suspended from slab and trusses in ceiling void.				
25.2.1.1	Supply and delivery	Meter	120		
25.2.1.2	Installation	Meter	120		
	Supply, delivery and installation of PVC conduits, surface mounted in ceiling voids and				
	fixed to walls or cast-in or built into walls, including all fixing materials, bends,				
	terminations, draw boxes, etc.				
25.2.2	20mm diameter				
25.2.2.1	Supply and delivery	Meter	200		
25.2.2.2	Installation	Meter	200		
	Supply, delivery and installation of Conduit outlets boxes c/w locknuts and bushes built				
	into brick or cast into concrete or surface mounted				
25.2.3	100 x 50 x 50 mm				
25.2.3.1	Supply and delivery	No	18		
25.2.3.2 25.2.4	Installation	No	18		
25.2.4.1	65mm round box Supply and delivery	No	28		
25.2.4.2	Installation	No	28		
	ACCESSORIES				
05.0.5					
25.2.5 25.2.5.1	Supply and Install accessories to boxes	No	10		
25.2.5.1	5A, 3-pin socket outlets to trunking 16Amp one lever one way light switch	No No	10 16		
25.2.5.3	16Amp one lever two way light switch	No	2		
25.2.5.4	16Amp two lever one way light switch	No	Rate		
25.2.5.5	16Amp two lever two way light switch	No	Rate		
25.2.5.6	Photocell	No	1		
25.2.5.7	Ceiling mounted occupancy sensor	No	6		
	WIRING AND TERMINALS				
25.2.6	Supply, Deliver and installation of Cu Conductors:				
25.2.6.1	4mm² PVC insulated conductor	Meter	Doto		Rate Only
	Supply and delivery Installation	Meter	Rate Rate		Rate Only
25.2.6.2	2,5mm² PVC insulated conductor	IVICTO	Nate		rate only
	Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
25.2.6.3	2,5mm² Heat resistant conductor				
	Supply and delivery	Meter	Rate		Rate Only
25.2.6.4	Installation 2,5mm² bare copper earth wire	Meter	Rate		Rate Only
25.2.0.4	Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
25.2.6.5	1.5mm <sup>2</sup> surfix twin and earth				,
	Supply and delivery	Meter	230		
	Installation	Meter	230		
SUB-TO	TAL FOR THIS PAGE CARRIED FORWARD	!			
BILL No	25.2 - LIGHTING INSTALLATION				

TE14	DESCRIPTION	UNIT	QTY		R VALUE
ITEM	DESCRIPTION			RATE	AMOUNT
SUB-TC	DTAL FROM PREVIOUS PAGE				
	LIGHT FITTINGS				
25.2.7	Supply, deliver, install, connect, test and commissioning the following light fittings				
25.2.7.1	TYPE F01 - 1200mm, 20W surface mounted LED batten light fitting with rolled mild	No	2		
	steel body and a white epoxy powder coated finish				
25.2.7.2	TYPE C1 - 83mm diameter LED downlight ceiling recessed Die-cast aluminium body with acrylic lens(8w cool white)	No	30		
25.2.7.3	TYPE F02 - 1200mm, 30W surface mounted LED vapor proof light fitting with self-extinguishing polycarbonate body	No	12		
5.2.7.4	TYPE P1 - 127mm diameter ,21W Adjustable-angle LED downlight fitting with die-cast aluminium bod	No	10		
25.2.7.5	TYPE P2 - Ceiling mounted LED light fitting with LM6 die cast and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp - Emergency type with backup power	No	4		
5.2.7.6	TYPE W1 - Wall mounted bulkhead LED light fitting with LM6 die cast and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp	No	4		
25.2.7.6	TYPE D1 - 83mm diameter LED downlight ceiling recessed Die-cast aluminium body with acrylic lens, 6W warm white	No	8		
-	BILL CARRIED FORWARD TO TENDER SUMMARY 22 - TYPE 1A HOSTEL	1			

### BILL No.25.3: SMALL POWER INSTALLATION

		UNIT	QTY	TENDE	R VALUE
ITEM	DESCRIPTION			RATE	AMOUNT
	WIREWAYS				
	WINCEWATO				
	Supply, delivery and installation of PVC conduits, surface mounted in ceiling voids and				
	fixed to walls or cast-in or built into walls, including all fixing materials, bends,				
25.3.1	terminations, draw boxes, etc. 20mm diameter				
25.3.1.1	Supply and delivery	Meter	220		
25.3.1.2	Installation	Meter	220		
25.3.2	Supply and install conduit droppers chased or built into wall, consisting of 3 x 25mm				
25.5.2	dia & 2 x 20mm dia from wire basket & trunking in ceiling void to power skirting c/w				
	1.6mm draw wires	No	25		
	Supply, delivery and installation of Conduit outlets boxes c/w locknuts and bushes built into brick or cast into concrete or surface mounted, c/w applicable cover	-			
25.3.3	100 x 100 x 50 mm				
25.3.3.1	Supply and delivery	No	25		
25.3.3.2	Installation	No	25		
	ACCESSORIES				
	Supply, delivery and installation of socket outlets				
25.3.4	16 A, 3-pin standard white SSO plus triple slimline 16A type 164-2				
25.3.4.1	Flush Mounted in wall box	No	20		
25.3.4.2	Mounted in floorbox	No	Rate		Rate Only
25.3.4.3 25.3.4.4	Surface mounted Power skirting mounted	No No	Rate Rate		Rate Only Rate Only
25.5.4.4	Fower Skirting mounted	INO	Nate		Nate Offig
25.3.5	16 A, 3-pin double white SSO				
25.3.5.1 25.3.5.2	Flush Mounted Surface mounted	No No	Rate Rate		Rate Only Rate Only
25.5.5.2	Surface mounted	INO	Nate		Nate Offig
25.3.6	16 A, 3-pin dedicated red SSO				
25.3.6.1 25.3.6.2	Flush Mounted in 100 X 100 (HVAC)	No	Rate		Rate Only
25.3.6.3	Mounted in floorbox Power skirting mounted, 45 degree (including plug top)	No No	Rate Rate		Rate Only Rate Only
					Trace Criny
	WIRING AND TERMINALS				
25.3.7	Supply, Deliver and installation of Cu Conductors:				
25.3.7.1	2.5mm² PVC insulated conductor		050		
	Supply and delivery Installation	Meter Meter	250 250		
25.3.7.2	4mm² PVC insulated conductor	Wiotoi	200		
	Supply and delivery	Meter	Rate		Rate Only
25.3.7.3	Installation 4mm² 4 core Surfix (For HVAC)	Meter	Rate		Rate Only
20.0.7.0	Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
25.3.7.4	2.5mm² PVC insulated earth	Matau	Data		Data Oak
	Supply and delivery Installation	Meter Meter	Rate Rate		Rate Only Rate Only
25.3.7.5	2.5mm² bare copper earth wire	Motor	rato		rtate orny
	Supply and delivery	Meter	125		
	Installation	Meter	125		
TOTAL	BILL CARRIED FORWARD TO TENDER SUMMARY				

### **BLOCK 22 - TYPE 1A HOSTEL**

ITEM	DESCRIPTION	TENDER
11 - 141	DEGOMI HON	AMOUNT
1	BILL No.25.1 - DISTRIBUTION BOARDS	
2	BILL No.25.2 - LIGHTING INSTALLATION	
3	BILL No.25.3: SMALL POWER INSTALLATION	
4	TOTAL FOR BILL No.25	

BILL NO. 17	
BLOCK 23 - HOSTEL MASTER	

BLOCK 23 - HOSTEL MASTER SUBJECT : BILL OF QUANTITIES

#### **BILL No.26.1- DISTRIBUTION BOARDS**

		UNIT	QTY	TENDE	R VALUE AMOUNT
ITEM	DESCRIPTION Supply, Install, test and commision Sub-distribution boards - surface mounted			RATE	AMOUNT
	distribution board cupboards, c/w all switchgear and breakers indicated on the				
	drawings				
26.1.1	DB-23	No	1		
20.1.1	05-23	INO	'		
26.1.2	Lable all circuits and install signage to the panels	sum	1		
26.1.3	Contificate of Consultance		4		
20.1.3	Certificate of Compliance	sum	1		
	BILL CARRIED FORWARD TO TENDER SUMMARY			·	

Moedwil Combined School- 26 - Block 23 - Hostel Master

**BLOCK 23 - HOSTEL MASTER** 

### **BILL No.26.2 - LIGHTING INSTALLATION**

		UNIT	QTY	TENDE	R VALUE
ITEM	DESCRIPTION			RATE	AMOUNT
	WIREWAYS				
26.2.1	Supply and Install Trunking				
	Supply and install P8300 trunking suspended from slab and trusses in ceiling void. Supply and delivery	Motor	Doto		Rate Only
	Installation	Meter	Rate		Rate Only
20.2.1.2	Installation	Meter	Rate		Rate Only
	Supply, delivery and installation of PVC conduits, surface mounted in ceiling voids and				
	fixed to walls or cast-in or built into walls, including all fixing materials, bends,				
	terminations, draw boxes, etc.				
26.2.2	20mm diameter				
	Supply and delivery	Meter	150		
	Installation	Meter	150		
	Supply, delivery and installation of Conduit outlets boxes c/w locknuts and bushes built				
	into brick or cast into concrete or surface mounted				
26.2.3	100 x 50 x 50 mm				
26.2.3.1	Supply and delivery	No	4		
26.2.3.2	Installation	No	4		
	65mm round box				
	Supply and delivery	No	16		
26.2.4.2	Installation	No	16		
	ACCESSORIES				
00.0.5					
	Supply and Install accessories to boxes		Б.		Data Oala
	5A, 3-pin socket outlets to trunking	No	Rate		Rate Only
	16Amp one lever one way light switch	No	8 2		
	16Amp one lever two way light switch 16Amp two lever one way light switch	No No	∠ Rate		Rate Only
	16Amp two lever two way light switch	No	Rate		Rate Only
	16Amp three lever one way light switch	No	1		reate Only
26.2.5.7	Photocell	No	1		
	Ceiling mounted occupancy sensor	No	1		
	55g5455 5555.		•		
26.2.6	Supply, Deliver and installation of Cu Conductors:				
	4mm² PVC insulated conductor				
	Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
26.2.6.2	2,5mm <sup>2</sup> PVC insulated conductor				
	Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
26.2.6.3	2,5mm² Heat resistant conductor		_		
	Supply and delivery	Meter	Rate		Rate Only
26.0.0.	Installation	Meter	Rate		Rate Only
26.2.6.4	2,5mm² bare copper earth wire	N 4 - 4	D-4-		Boto Onl
	Supply and delivery Installation	Meter	Rate		Rate Only Rate Only
26 2 6 5	1.5mm² surfix twin and earth	Meter	Rate		Rate Only
20.2.0.3	Supply and delivery	Meter	150		
	Installation	Meter	150		
	in Standiton	IVICICI	130		
CUD T	OTAL FOR THIS DACE CARRIED FORWARD	ш.		<u> </u>	
	OTAL FOR THIS PAGE CARRIED FORWARD				

BILL No.26.2 - LIGHTING INSTALLATION

TEN4	DECORIDATION	UNIT	QTY		R VALUE
ITEM	DESCRIPTION			RATE	AMOUNT
SUB-T	OTAL FROM PREVIOUS PAGE				
	LIGHT FITTINGS				
	Supply, deliver, install, connect, test and commissioning the following light fittings				
	TYPE C1 - 83mm diameter LED downlight ceiling recessed Die-cast aluminium body	No	3		
	with acrylic lens(8w cool white)	INO	3		
	TYPE P1 - 127mm diameter ,21W Adjustable-angle LED downlight fitting with die-cast aluminium bod	No	13		
	TYPE F02 - 1200mm, 30W surface mounted LED vapor proof light fitting with self-extinguishing polycarbonate body	No	2		
26.2.7.4	TYPE W1 - Wall mounted bulkhead LED light fitting with LM6 die cast and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp	No	3		
TOT 41	. BILL CARRIED FORWARD TO TENDER SUMMARY				

BLOCK 23 - HOSTEL MASTER SUBJECT : BILL OF QUANTITIES

### **BILL No.26.3: SMALL POWER INSTALLATION**

		UNIT	QTY	TENDE	R VALUE
ITEM	DESCRIPTION			RATE	AMOUNT
	WIREWAYS				
	WIREWATS				
	Supply, delivery and installation of PVC conduits, surface mounted in ceiling voids and				
	fixed to walls or cast-in or built into walls, including all fixing materials, bends,				
	terminations, draw boxes, etc. 20mm diameter				
26.3.2.1	Supply and delivery	Meter	160		
26.3.2.2	Installation	Meter	160		
	Supply and install conduit droppers chased or built into wall, consisting of 3 x 25mm dia & 2 x 20mm dia from wire basket & trunking in ceiling void to power skirting c/w				
	1.6mm draw wires	No	10		
	Supply, delivery and installation of Conduit outlets boxes c/w locknuts and bushes built				
	into brick or cast into concrete or surface mounted, c/w applicable cover 100 x 100 x 50 mm				
26.3.3.1	Supply and delivery	No	12		
26.3.3.2	Installation	No	12		
	ACCESSORIES				
	AGCEGGGMEG				
	Supply, delivery and installation of socket outlets				
	16 A, 3-pin standard white SSO plus triple slimline 16A type 164-2	NI.	4.4		
	Flush Mounted in wall box Mounted in floorbox	No No	14 Rate		Rate Only
	Surface mounted	No	Rate		Rate Only
26.3.4.4	Power skirting mounted	No	Rate		Rate Only
26.3.5	16 A 2 pia daubla white CCO				
	16 A, 3-pin double white SSO Flush Mounted	No	Rate		Rate Only
	Surface mounted	No	Rate		Rate Only
00.00	40.4.0.1.1.1.1.000				
26.3.6 26.3.6.1	16 A, 3-pin dedicated red SSO Flush Mounted in 100 X 100 (HVAC)	No	Rate		Rate Only
	Mounted in floorbox	No	Rate		Rate Only
	Power skirting mounted, 45 degree (including plug top)	No	Rate		Rate Only
	WIDING AND TERMINALS				
	WIRING AND TERMINALS				
26.3.7	Supply, Deliver and installation of Cu Conductors:				
26.3.7.1	2.5mm² PVC insulated conductor				
	Supply and delivery Installation	Meter Meter	180 180		
26.3.7.2	4mm² PVC insulated conductor	Meter	100		
	Supply and delivery	Meter	Rate		Rate Only
00 0 7 0	Installation	Meter	Rate		Rate Only
26.3.7.3	4mm² 4 core Surfix (For HVAC) Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
26.3.7.4	2.5mm² PVC insulated earth				_
	Supply and delivery	Meter	Rate		Rate Only
26375	Installation 1.5mm² bare copper earth wire	Meter	Rate		Rate Only
	Supply and delivery	Meter	90		
	Installation	Meter	90		
	RILL CAPPIED FORWARD TO TENDER SLIMMARY				

TOTAL BILL CARRIED FORWARD TO TENDER SUMMARY **BLOCK 23 - HOSTEL MASTER** 

SUBJECT: BILL OF QUANTITIES

ITEM	DESCRIPTION	TENDER
1	BILL No.26.1- DISTRIBUTION BOARDS	
2	BILL No.26.2 - LIGHTING INSTALLATION	
3	BILL No.26.3: SMALL POWER INSTALLATION	
4	TOTAL FOR BILL No.26	

# BLOCK 24 - GUARD HOUSE SUBJECT : BILL OF QUANTITIES

### BILL No.27.1 - DISTRIBUTION BOARDS

Supply, Install, test and commission Sub-distribution boards - surface mounted distribution board cupboards, civ all switchgear and breakers indicated on the drawings  27.1.1 DB-24  Lable all circuits and install signage to the panels  Certificate of Compliance  1 October 1 October 1 October 1 October 1 October 1 October 2 O	ITEM	DESCRIPTION	UNIT	QTY	TENDE!	AMOUNT
distribution board cupboards, c/w all switchgear and breakers indicated on the drawings  27.1.1 DB-24  No 1  27.1.2 Lable all circuits and install signage to the panels  sum 1	IIEW	Supply, Install, test and commision Sub-distribution boards - surface mounted			KAIL	AWOUNT
27.1.1 DB-24 No 1 27.1.2 Lable all circuits and install signage to the panels sum 1		distribution board cupboards, c/w all switchgear and breakers indicated on the				
27.1.2 Lable all circuits and install signage to the panels sum 1		drawings				
27.1.2 Lable all circuits and install signage to the panels sum 1	27.1.1	DB-24	No	1		
27.1.3 Certificate of Compliance sum 1	27.1.2	Lable all circuits and install signage to the panels	sum	1		
	27.1.3	Certificate of Compliance	sum	1		
		Solutions of Solutions		•		
TOTAL FOR BILL CARRIED FORWARD TO SUMMARY						

Moedwil Combined School- 27 - Block 24 - Guard House

**BLOCK 24 - GUARD HOUSE** 

### **BILL No.27.2 - LIGHTING INSTALLATION**

		UNIT	QTY	TENDE	R VALUE
ITEM	DESCRIPTION			RATE	AMOUNT
	WIREWAYS				
	Supply and Install Trunking				
	Supply and install P8300 trunking suspended from slab and trusses in ceiling void.				
	Supply and delivery	Meter	Rate		Rate Only
27.2.1.2	Installation	Meter	Rate		Rate Only
	Supply, delivery and installation of PVC conduits, surface mounted in ceiling voids and				
	fixed to walls or cast-in or built into walls, including all fixing materials, bends,				
27.2.2	terminations, draw boxes, etc.				
	20mm diameter Supply and delivery	Meter	20		
	Installation	Meter	20		
	Supply, delivery and installation of Conduit outlets boxes c/w locknuts and bushes built into brick or cast into concrete or surface mounted				
27.2.3	100 x 50 x 50 mm				
	Supply and delivery	No	2		
	Installation	No	2		
	65mm round box Supply and delivery	No	8		
	Installation	No	8		
	ACCESSORIES				
27.2.5	Cumply and Install accessories to have				
	Supply and Install accessories to boxes 5A, 3-pin socket outlets to trunking	No	Rate		Rate Only
27.2.5.2	16Amp one lever one way light switch	No	2		,
	16Amp one lever two way light switch	No	Rate		Rate Only
	16Amp two lever one way light switch 16Amp two lever two way light switch	No	Rate		Rate Only Rate Only
	Photocell	No No	Rate 1		Rate Offig
	Ceiling mounted occupancy sensor	No	1		
	WIRING AND TERMINALS				
27.2.6	Supply, Deliver and installation of Cu Conductors:				
27.2.6.1	4mm² PVC insulated conductor				
	Supply and delivery	Meter	Rate		Rate Only
27 2 6 2	Installation 2.5mm² PVC insulated conductor	Meter	Rate		Rate Only
27.2.0.2	Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
27.2.6.3	2,5mm² Heat resistant conductor	N 4 = 4 = 4	Data		Rate Only
	Supply and delivery Installation	Meter Meter	Rate Rate		Rate Only
27.2.6.4	2,5mm² bare copper earth wire				, J
	Supply and delivery	Meter	Rate		Rate Only
27 2 6 5	Installation 1.5mm² surfix twin and earth	Meter	Rate		Rate Only
27.2.0.5	Supply and delivery	Meter	20		
	Installation	Meter	20		
SUR-T	OTAL FOR THIS PAGE CARRIED FORWARD			<u> </u>	
	La 27 2 LICUTING INCTALLATION				

BILL No.27.2 - LIGHTING INSTALLATION

		UNIT	QTY		R VALUE
ITEM	DESCRIPTION			RATE	AMOUNT
SUB-1	OTAL FROM PREVIOUS PAGE				
	LIGHT FITTINGS				
	LIGHT FITTINGS				
27.2.7	Supply, deliver, install, connect, test and commissioning the following light fittings				
27.2.7.1	TYPE F01 - 1200mm, 20W surface mounted LED batten light fitting with rolled mild steel body and a white epoxy powder coated finish	No	1		
27.2.7.2	TYPE C1 - 83mm diameter LED downlight ceiling recessed Die-cast aluminium body with acrylic lens(8w cool white)	No	1		
27.2.7.3	TYPE W1 - Wall mounted bulkhead LED light fitting with LM6 die cast and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp	No	1		
TOTA	FOR BILL CARRIED FORWARD TO SUMMARY				

BLOCK 24 - GUARD HOUSE
SUBJECT: BILL OF QUANTITIES

### **BILL No.27.3: SMALL POWER INSTALLATION**

		UNIT	QTY		R VALUE
ITEM	DESCRIPTION			RATE	AMOUNT
	WIREWAYS				
	WINCEWAIS				
	Supply, delivery and installation of PVC conduits, surface mounted in ceiling voids and				
	fixed to walls or cast-in or built into walls, including all fixing materials, bends,				
	terminations, draw boxes, etc.				
27.3.1	20mm diameter		<b>.</b> .		
27.3.2.1 27.3.2.2	Supply and delivery	Meter	Rate		Rate Only
21.3.2.2	Installation	Meter	Rate		Rate Only
27.3.2	Supply and install conduit droppers chased or built into wall, consisting of 3 x 25mm				
	dia & 2 x 20mm dia from wire basket & trunking in ceiling void to power skirting c/w				
	1.6mm draw wires	No	5		
	Supply, delivery and installation of Conduit outlets boxes c/w locknuts and bushes built				
27.3.3	into brick or cast into concrete or surface mounted, c/w applicable cover				
27.3.3.1	100 x 100 x 50 mm Supply and delivery	No	20		
27.3.3.2	Installation	No	20		
	Tiolanation	110	20		
	ACCESSORIES				
27.2.6	Supply, delivery and installation of socket outlets				
27.3.6	16 A, 3-pin standard white SSO plus triple slimline 16A type 164-2 Flush Mounted in wall box	No	2		
	Mounted in Wall box Mounted in floorbox	No No	3 Rate		Rate Only
	Surface mounted	No	Rate		Rate Only
	Power skirting mounted	No	Rate		Rate Only
	Tower starting mounted	110	rtato		rtato Orny
27.3.7	16 A, 3-pin double white SSO				
	Flush Mounted	No	Rate		Rate Only
27.3.7.2	Surface mounted	No	Rate		Rate Only
27.2.0	40 A 2 min dedicated and CCO				
27.3.8	16 A, 3-pin dedicated red SSO Flush Mounted in 100 X 100 (HVAC)	No	Rate		Rate Only
	Mounted in floorbox	No	Rate		Rate Only
	Power skirting mounted, 45 degree (including plug top)	No	Rate		Rate Only
	. one. on any mountain, no angles (mountaing play top)				
	WIRING AND TERMINALS				
27.3.9	Supply, Deliver and installation of Cu Conductors:				
27.3.9.1	2.5mm² PVC insulated conductor				
	Supply and delivery	Meter	20		
	Installation	Meter	20		
27.3.9.2	4mm² PVC insulated conductor				
	Supply and delivery	Meter	Rate		Rate Only
27 2 0 2	Installation	Meter	Rate		Rate Only
27.3.9.3	4mm² 4 core Surfix (For HVAC) Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
27.3.9.4	2.5mm² PVC insulated earth	Meter	Nate		Rate Offig
	Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
27.3.9.5	1.5mm² bare copper earth wire				,
	Supply and delivery	Meter	10		
	Installation	Meter	10		
ΤΟΤΔΙ	FOR BILL CARRIED FORWARD TO SUMMARY				

TOTAL FOR BILL CARRIED FORWARD TO SUMMARY

MOEDWIL COMBINED SCHOOL - GUARD HOUSE

SUBJECT: BILL OF QUANTITIES

ITEM	DESCRIPTION	TENDER AMOUNT
1	BILL No.27.1 - DISTRIBUTION BOARDS	
2	BILL No.27.2 - LIGHTING INSTALLATION	
3	BILL No.27.3: SMALL POWER INSTALLATION	
4	TOTAL FOR BILL No.27	

BILL NO. 19  OCK 25 - TYPE 1 HOSTEL
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# BLOCK 25 - TYPE 1A HOSTEL SUBJECT : BILL OF QUANTITIES

#### **BILL No.28.1 - DISTRIBUTION BOARDS**

ITEM	DESCRIPTION	UNIT	QTY	TENDE	R VALUE
ITEM	DESCRIPTION Supply, Install, test and commision Sub-distribution boards - surface mounted			RATE	AMOUNT
	distribution board cupboards, c/w all switchgear and breakers indicated on the				
	drawings				
28.1.1	DB-25	No	1		
28.1.2	Lable all circuits and install signage to the panels	sum	1		
28.1.3	Certificate of Compliance	sum	1		
	FOR BILL CARRIED FORWARD TO SUMMARY				

Moedwil Combined School- 28 - Block 25 - Type 1 Hostel

**BLOCK 25 - TYPE 1A HOSTEL** 

#### SUBJECT: BILL OF QUANTITIES

## **BILL No.28.2 - LIGHTING INSTALLATION**

ITENA	DECORIDATION	UNIT	QTY		R VALUE
ITEM	DESCRIPTION WIREWAYS			RATE	AMOUNT
	WIREWAIS				
	Supply and Install Trunking				
28.2.1	Supply and install P8300 trunking suspended from slab and trusses in ceiling void.				
28.2.1.1	Supply and delivery	Meter	120		
28.2.1.2	Installation	Meter	120		
	Supply, delivery and installation of PVC conduits, surface mounted in ceiling voids and	_			
	fixed to walls or cast-in or built into walls, including all fixing materials, bends,				
00.00	terminations, draw boxes, etc.				
28.2.2	20mm diameter		000		
28.2.2.1 28.2.2.2	Supply and delivery	Meter	200		
20.2.2.2	Installation	Meter	200		
	Supply, delivery and installation of Conduit outlets boxes c/w locknuts and bushes built				
	into brick or cast into concrete or surface mounted	-			
28.2.3	100 x 50 x 50 mm				
	Supply and delivery	No	18		
	Installation	No	18		
	65mm round box	1,0	10		
	Supply and delivery	No	28		
28.2.4.2	Installation	No	28		
	ACCESSORIES				
28.2.5	Supply and Install accessories to boxes				
	5A, 3-pin socket outlets to trunking	No	10		
28.2.5.2	16Amp one lever one way light switch	No	16		
	16Amp one lever two way light switch	No	2		
	16Amp two lever one way light switch	No	Rate		Rate Only
28.2.5.5	16Amp two lever two way light switch	No	Rate		Rate Only
28.2.5.6	Photocell	No	1		
28.2.5.7	Ceiling mounted occupancy sensor	No	6		
	WIRING AND TERMINALS				
00.00					
28.2.6	Supply, Deliver and installation of Cu Conductors:				
28.2.6.1	4mm² PVC insulated conductor		D - 1 -		Data Oak
	Supply and delivery	Meter	Rate		Rate Only Rate Only
28.2.6.2	Installation 2,5mm² PVC insulated conductor	Meter	Rate		Rate Offis
	Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
28.2.6.3	2,5mm² Heat resistant conductor	Wictor	rtato		
	Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
28.2.6.4	2,5mm² bare copper earth wire				-
	Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
28.2.6.5	1.5mm <sup>2</sup> surfix twin and earth				
	Supply and delivery	Meter	230		
	Installation	Meter	230		
SUB-TO	OTAL FOR THIS PAGE CARRIED FORWARD			-	
	p.28.2 - LIGHTING INSTALLATION				

UNIT QTY TENDER VALUE

ITEM	DESCRIPTION			RATE	AMOUNT
SUB-T	OTAL FROM PREVIOUS PAGE				
	LIGHT FITTINGS				
28.2.7	Supply, deliver, install, connect, test and commissioning the following light fittings				
28.2.7.1	TYPE F01 - 1200mm, 20W surface mounted LED batten light fitting with rolled mild steel body and a white epoxy powder coated finish	No	2		
28.2.7.2	TYPE C1 - 83mm diameter LED downlight ceiling recessed Die-cast aluminium body with acrylic lens(8w cool white)	No	30		
28.2.7.3	TYPE F02 - 1200mm, 30W surface mounted LED vapor proof light fitting with self-extinguishing polycarbonate body	No	12		
28.2.7.4	TYPE P1 - 127mm diameter ,21W Adjustable-angle LED downlight fitting with die-cast aluminium bod	No	10		
28.2.7.5	TYPE P2 - Ceiling mounted LED light fitting with LM6 die cast and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp - Emergency type with backup power	No	4		
28.2.7.6	TYPE W1 - Wall mounted bulkhead LED light fitting with LM6 die cast and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp	No	4		
28.2.7.7	TYPE D1 - 83mm diameter LED downlight ceiling recessed Die-cast aluminium body with acrylic lens, 6W warm white	No	8		
TOTAL	BILL CARRIED FORWARD TO TENDER SUMMARY				

BLOCK 25 - TYPE 1A HOSTEL SUBJECT : BILL OF QUANTITIES

BILL No.28.3: SMALL POWER INSTALLATION

		UNIT	QTY		R VALUE
ITEM	DESCRIPTION			RATE	AMOUNT
	WIREWAYS				
	WINCEWAIG				
	Supply, delivery and installation of PVC conduits, surface mounted in ceiling voids and				
	fixed to walls or cast-in or built into walls, including all fixing materials, bends,				
28.3.1	terminations, draw boxes, etc. 20mm diameter				
28.3.1.1	Supply and delivery	Meter	220		
28.3.1.2	Installation	Meter	220		
28.3.2	Supply and install conduit droppers chased or built into wall, consisting of 3 x 25mm dia & 2 x 20mm dia from wire basket & trunking in ceiling void to power skirting c/w				
	1.6mm draw wires	No	25		
			_0		
	Supply, delivery and installation of Conduit outlets boxes c/w locknuts and bushes built				
20.2.2	into brick or cast into concrete or surface mounted, c/w applicable cover				
28.3.3 28.3.3.1	100 x 100 x 50 mm Supply and delivery	No	25		
28.3.3.2	Installation	No	25		
	ACCESSORIES				
	Supply, delivery and installation of socket outlets				
28.3.4	16 A, 3-pin standard white SSO plus triple slimline 16A type 164-2				
28.3.4.1	Flush Mounted in wall box	No	20		
28.3.4.2 28.3.4.3	Mounted in floorbox Surface mounted	No No	Rate Rate		Rate Only Rate Only
28.3.4.4	Power skirting mounted	No	Rate		Rate Only
	,				,
28.3.5	16 A, 3-pin double white SSO	l l	<b>.</b> .		5.01
28.3.5.1 28.3.5.2	Flush Mounted Surface mounted	No No	Rate Rate		Rate Only Rate Only
20.0.0.2	Surface mounted	110	rtate		reace Offiny
28.3.6	16 A, 3-pin dedicated red SSO				
28.3.6.1	Flush Mounted in 100 X 100 (HVAC)	No	Rate		Rate Only
28.3.6.2 28.3.6.3	Mounted in floorbox Power skirting mounted, 45 degree (including plug top)	No No	Rate Rate		Rate Only Rate Only
20.0.0.0	Tower skirting modrited, 43 degree (including plug top)	110	reacc		reace Offig
	WIRING AND TERMINALS				
28.3.7	Supply, Deliver and installation of Cu Conductors:				
28.3.7.1	2.5mm² PVC insulated conductor				
	Supply and delivery	Meter	250		
28 3 7 2	Installation 4mm² PVC insulated conductor	Meter	250		
20.0.7.2	Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
28.3.7.3	4mm² 4 core Surfix (For HVAC)		<b>.</b> .		5 . 6 .
	Supply and delivery Installation	Meter Meter	Rate Rate		Rate Only Rate Only
28.3.7.4	2.5mm² PVC insulated earth	Meter	Rate		Rate Offig
	Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
28.3.7.5	2.5mm² bare copper earth wire	11-4	405		
	Supply and delivery Installation	Meter Meter	125 125		
L	TAL FOR THE BACE CARRIED FORWARD				

SUB-TOTAL FOR THIS PAGE CARRIED FORWARD

BLOCK 25 - TYPE 1A HOSTEL SUBJECT : BILL OF QUANTITIES

SUMMARY OF SCHEDULE OF QUANTITIES

ITEM	DESCRIPTION	TENDER AMOUNT
1	BILL No.28.1 - DISTRIBUTION BOARDS	
2	BILL No.28.2 - LIGHTING INSTALLATION	
3	BILL No.28.3: SMALL POWER INSTALLATION	
4	TOTAL FOR BILL No.28	

3 <b>ILL</b>
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# BLOCK 26 - TYPE 1A HOSTEL SUBJECT : BILL OF QUANTITIES

## BILL No.29.1 - DISTRIBUTION BOARDS

		UNIT	QTY	TENDEI RATE	R VALUE
ITEM	DESCRIPTION Supply, Install, test and commision Sub-distribution boards - surface mounted			RATE	AMOUNT
	distribution board cupboards, c/w all switchgear and breakers indicated on the				
	drawings				
29.1.1	DB-26	No	1		
29.1.2	Lable all circuits and install signage to the panels	sum	1		
29.1.3	Certificate of Compliance	sum	1		
TOTAL	FOR BILL CARRIED FORWARD TO SUMMARY				

**BLOCK 26 - TYPE 1A HOSTEL** 

## **SUBJECT: BILL OF QUANTITIES**

## **BILL No.29.2 - LIGHTING INSTALLATION**

		UNIT	QTY		R VALUE
ITEM	DESCRIPTION   WIREWAYS			RATE	AMOUNT
	WIREWATS				
	Supply and Install Trunking				
29.2.1	Supply and install P8300 trunking suspended from slab and trusses in ceiling void.				
29.2.1.1	Supply and delivery	Meter	120		
29.2.1.2	Installation	Meter	120		
	Supply, delivery and installation of PVC conduits, surface mounted in ceiling voids and				
	fixed to walls or cast-in or built into walls, including all fixing materials, bends,	-			
	terminations, draw boxes, etc.				
29.2.2	20mm diameter				
29.2.2.1	Supply and delivery	Meter	200		
29.2.2.2	Installation	Meter	200		
	Supply, delivery and installation of Conduit outlets boxes c/w locknuts and bushes built				
	into brick or cast into concrete or surface mounted				
29.2.3	100 x 50 x 50 mm				
29.2.3.1	Supply and delivery	No	18		
29.2.3.2	Installation	No	18		
29.2.4 29.2.4.1	65mm round box Supply and delivery	No	28		
29.2.4.2	Installation	No	28		
			_0		
	ACCESSORIES				
00.0.5	O make and heatell account to be one				
29.2.5 29.2.5.1	Supply and Install accessories to boxes 5A, 3-pin socket outlets to trunking	No	10		
29.2.5.2	16Amp one lever one way light switch	No	16		
29.2.5.3	16Amp one lever two way light switch	No	2		
29.2.5.4	16Amp two lever one way light switch	No	Rate		Rate Only
29.2.5.5	16Amp two lever two way light switch	No	Rate		Rate Only
29.2.5.6	Photocell	No	1		
29.2.5.7	Ceiling mounted occupancy sensor	No	6		
	WIRING AND TERMINALS				
29.2.6	Supply, Deliver and installation of Cu Conductors:				
29.2.6.1	4mm² PVC insulated conductor				
	Supply and delivery	Meter	Rate		Rate Only
29.2.6.2	Installation 2.5mm² PVC insulated conductor	Meter	Rate		Rate Only
29.2.0.2	Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
29.2.6.3	2,5mm² Heat resistant conductor				
	Supply and delivery	Meter	Rate		Rate Only
00 0 0 4	Installation	Meter	Rate		Rate Only
29.2.6.4	2,5mm² bare copper earth wire Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
29.2.6.5	1.5mm² surfix twin and earth	Motor	rtato		
	Supply and delivery	Meter	230		
	Installation	Meter	230		
01:5 -	L SON THE PAGE CARRIES TO				
	OTAL FOR THIS PAGE CARRIED FORWARD				

BILL No.29.2 - LIGHTING INSTALLATION

LIGHT FITTINGS  9.2.7.1 TYPE F01 - 1200mm, 20W surface mounted LED batten light fitting with rolled mild steel body and a white epoxy powder coated finish  19.2.7.2 TYPE C1 - 83mm diameter LED downlight ceiling recessed Die-cast aluminium body with acrylic lens(8w cool white)  17.79E F02 - 1200mm, 30W surface mounted LED vapor proof light fitting with self-extinguishing polycarbonate body  17.79E F02 - 1207mm diameter ,21W Adjustable-angle LED downlight fitting with die-cast aluminium bod  19.2.7.4 TYPE P1 - 127mm diameter ,21W Adjustable-angle LED downlight fitting with die-cast aluminium bod  19.2.7.5 TYPE P2 - Ceiling mounted LED light fitting with LM6 die cast and extruded aluminium bod body and opal acrylic diffuser fitted with 17W LED lamp - Emergency type with backup power  19.2.7.6 TYPE W1 - Wall mounted bulkhead LED light fitting with LM6 die cast and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp  No 4			UNIT	QTY		R VALUE
LIGHT FITTINOS  Supply, deliber, install, connect, test and commissioning the following light fittings.  17YE F01 - 1200mm, 20W surface mounted LED batten light fitting with rolled mild steel body and a white epoxy powder coated finish  12222 TYPE C1 - 83mm diameter LED downlight celling recessed Die-cast aluminium body with acrylic lengt@w.col white proxy powder coated finish  12 extinguishing polycarbonate body  13 TYPE F02 - 1200mm, 30W surface mounted LED vapor proof light fitting with self-extinguishing polycarbonate body  14 extinguishing polycarbonate body  15 PYPE P02 - 1200mm, 30W surface mounted LED loght fitting with LMS die cast and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp - Emergency type with backup power  18 PYPE P02 - Calling mounted LED light fitting with LMS die cast and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp - Emergency type with backup power  18 PYPE P01 - Wall mounted bulkhead LED light fitting with LMS die cast and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp - Emergency type with backup power  18 PYPE P1 - Wall mounted bulkhead LED light fitting with LMS die cast and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp.  18 Wall mounted bulkhead LED light fitting with LMS die cast and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp.  18 Wall mounted bulkhead LED light fitting with LMS die cast and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp.  19 Wall mounted bulkhead LED light fitting with LMS die cast and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp.  19 Wall mounted bulkhead LED light fitting with LMS die cast and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp.  10 Wall mounted LED downlight celling recessed Die-cast aluminium body with acrylic lens, 6W warm white	ITEM	DESCRIPTION			RATE	AMOUNT
Supply, deliver, install, connect, test and commissioning the following light fittings.  12-71  TYPE F01 - 1200mm, 20W surface mounted LED batten light fitting with rolled mild stell body and a white epoxy powder coated finish  12-72  TYPE F12 - 120mm, 30W surface mounted LED vapor proof light fitting with self-oxitinguishing polycarbonate body with acrylic lens(8w cool white)  12-73  TYPE F02 - 120mm, 30W surface mounted LED vapor proof light fitting with self-oxitinguishing polycarbonate body aluminish bod aluminish bod aluminish bod aluminish bod aluminish bod aluminish bod aluminish bod aluminish bod aluminish bod power of the self-oxiting with LM6 die cast and extruded aluminish body and opal acrylic diffuser fitted with 17W LED lamp - Emerigency type with backup power  17-72 F12 F13 F13 F13 F13 F13 F13 F13 F13 F13 F13	SUB-T	OTAL FROM PREVIOUS PAGE				
19.2.7.1  TYPE F01 - 1200mm, 20W surface mounted LED batten light fitting with rolled mild steel body and a white epoxy powder coated finish with acrylic lens(8w cool white)  19.2.7.2  TYPE C1 - 8.3mm diameter LED downlight ceiling recessed Die-cast aluminium body with acrylic lens(8w cool white)  19.2.7.3  TYPE F02 - 1200mm, 30W surface mounted LED vapor proof light fitting with self-exitinguishing polycarbonate body  10.2.7.4  TyPE P1 - 127mm diameter .21W Adjustable-angle LED downlight fitting with die-cast aluminium bod aluminium bod body and opal acrylic diffuser fitted with 17W LED lamp - Emergency type with backup power  12.7.7  TYPE W1 - Wall mounted bulkhead LED light fitting with LM6 die cast and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp  12.7.7  TYPE U1 - 8.3mm diameter LED downlight ceiling recessed Die-cast aluminium body with acrylic lens, 6W warm white  10.0		LIGHT FITTINGS				
szele body and a white epoxy powder coated finish steel body and a white epoxy powder coated finish yith acrylic lens(8w cool white)  17PE C1 - 83mm diameter LED downlight ceiling recessed Die-cast aluminium body with acrylic lens(8w cool white)  17PE P2 - 1200mm, 30W surface mounted LED vapor proof light fitting with self-outinguishing poly-carbonate body  17PE P1 - 127mm diameter .21W Adjustable-angle LED downlight fitting with die-cast aluminium bod  17PE P2 - Ceiling mounted LED light fitting with LM6 die cast and extruded aluminium bod and opal acrylic diffuser fitted with 17W LED lamp  17PE W1 - Wall mounted bulkhead LED light fitting with LM6 die cast and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp  17PE D1 - 83mm diameter LED downlight ceiling recessed Die-cast aluminium body  No  18  10  10  11  12  17PE W1 - Wall mounted bulkhead LED light fitting with LM6 die cast and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp  17PE W1 - Wall mounted bulkhead LED light fitting with LM6 die cast and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp  17PE D1 - 83mm diameter LED downlight ceiling recessed Die-cast aluminium body  No  18  10  10  11  12  13  14  15  15  16  17  17  17  17  17  17  17  17  17	29.2.7	Supply, deliver, install, connect, test and commissioning the following light fittings				
with acrylic lens(8w cool white)  1273 TYPE F02 - 1200mm, 30W surface mounted LED vapor proof light fitting with self-exitinguishing polycarbonate body  128-27.4 TYPE F02 - 1200mm, 30W surface mounted LED vapor proof light fitting with die-cast aluminium bod aluminium bod aluminium bod poly and opal acrylic diffuser fitted with 17W LED lamp - Emergency type with backup power  127.6 TYPE W1 - Wall mounted bulkhead LED light fitting with LM6 die cast and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp  127.7 TYPE W1 - Wall mounted bulkhead LED downlight celling recessed Die-cast aluminium body with acrylic lens, 6W warm white  128.7 TYPE D1 - 83mm diameter LED downlight celling recessed Die-cast aluminium body with acrylic lens, 6W warm white  138.7 TYPE D1 - 83mm diameter LED downlight celling recessed Die-cast aluminium body with acrylic lens, 6W warm white	29.2.7.1		No	2		
extinguishing polycarbonate body  TYPE P1 - 127mm diameter ,21W Adjustable-angle LED downlight fitting with die-cast aluminium bod  10  110  127.5 TYPE P2 - Geiling mounted LED light fitting with LM6 die cast and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp - Emergency type with backup power  127.6 TYPE W1 - Wall mounted builchead LED light fitting with LM6 die cast and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp  127.6 TYPE D1 - 83mm diameter LED downlight ceiling recessed Die-cast aluminium body with acrylic lans, 6W warm white  138.7 Warm with acrylic lans, 6W warm white	29.2.7.2		No	30		
aluminium bod  1792.7.5 TYPE P2 - Ceillig mounted LED light fitting with LM6 die cast and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp - Emergency type with backup power  1792.7.6 TYPE W1 - Wall mounted bulkhead LED light fitting with LM6 die cast and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp  1792.7.7 TYPE D1 - 83mm diameter LED downlight ceiling recessed Die-cast aluminium body with acrylic lens, 6W warm white  1707.1.1 BILL CARRIED FORWARD TO TENDER SUMMARY  1800.0CK 26 - TYPE 1A HOSTEL	29.2.7.3		No	12		
body and opal acrylic diffuser fitted with 17W LED lamp - Emergency type with backup power  9.2.76  TYPE W1 - Wall mounted bulkhead LED light fitting with LM6 die cast and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp  9.2.77  TYPE D1 - 83mm diameter LED downlight ceiling recessed Die-cast aluminium body with acrylic lens, 6W warm white  8  **TOTAL BILL CARRIED FORWARD TO TENDER SUMMARY**  **SUMMARY**  **TOTAL BILL CARRIED FORWARD TO TENDER SUMMARY**  **SUMMARY**  **TOTAL BILL CARRIED FORWARD TO TENDER SUMMARY**  **SUMMARY**  **TOTAL BILL CARRIED FORWARD TO TENDER SUMMARY**  **SUMMARY**  **TOTAL BILL CARRIED FORWARD TO TENDER SUMMARY**  **SUMMARY**  **TOTAL BILL CARRIED FORWARD TO TENDER SUMMARY**  **SUMMARY**  **TOTAL BILL CARRIED FORWARD TO TENDER SUMMARY**  9.2.7.4		No	10			
aluminium body and opal acrylic diffuser fitted with 17W LED lamp  19.2.7.7 TYPE D1 - 83mm diameter LED downlight ceiling recessed Die-cast aluminium body with acrylic lens, 6W warm white  19.2.7.7 TYPE D1 - 83mm diameter LED downlight ceiling recessed Die-cast aluminium body with acrylic lens, 6W warm white  19.2.7.7 TYPE D1 - 83mm diameter LED downlight ceiling recessed Die-cast aluminium body with acrylic lens, 6W warm white	29.2.7.5	body and opal acrylic diffuser fitted with 17W LED lamp - Emergency type with backup	No	4		
TOTAL BILL CARRIED FORWARD TO TENDER SUMMARY SLOCK 26 - TYPE 14 HOSTEL	29.2.7.6		No	4		
BLOCK 26 - TYPE 1A HOSTEL	29.2.7.7		No	8		
BLOCK 26 - TYPE 1A HOSTEL						
BLOCK 26 - TYPE 1A HOSTEL						
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BLOCK 26 - TYPE 1A HOSTEL						
BLOCK 26 - TYPE 1A HOSTEL						
BLOCK 26 - TYPE 1A HOSTEL	TOTAL	BILL CARRIED FORWARD TO TENDER SUMMARY				
	BLOCK	C 26 - TYPE 1A HOSTEL				

## **BILL No.29.3: SMALL POWER INSTALLATION**

WIREWAYS  Supply, delivery, and installation of PVC conduits, surface mounted in ceiling voids and fixed to walls or cast-in or built into walls, including all fixing materials, bends, terminations, draw boxes, etc.  203.12 Supply and delivery  303.22 Installation  Supply and install conduit droppers chased or built into wall, consisting of 3 x 25mm, dia 8 z x 25mm dia from wire basket & trunking in ceiling void to power skirting c/w.  1.6mm draw wires  Supply, delivery and installation of Conduit outlets boxes c/w locknuts and bushes built into brick or cast into concrete or surface mounted, c/w applicable cover  100 x 100 x 50 mm  Supply, delivery and installation of Socket outlets  100 x 100 x 50 mm  ACCESSORIES  Supply, delivery and installation of socket outlets  16 A, 3-pin standard white SSO plus triple slimline 16A type 164-2  183-41 Flush Mounted in wall box  No Rate Rate Only  323-43 Surface mounted  No Rate Rate Only  323-55 Flush Mounted in SSO  323-56 Surface mounted  No Rate Rate Only  323-57 Surface mounted  No Rate Rate Only  323-57 Surface mounted  No Rate Rate Only  323-67 Surface mounted  No Rate Rate Only  323-78 Surface mounted  No Rate Rate Only  323-79 Surface mounted  No Rate Rate Only  323-79 Surface mounted  No Rate Rate Only  323-79 Surface mounted  No Rate Rate Only  323-71 Surface mounted  No Rate Rate Only  323-71 Surface mounted  No Rate Rate Only  323-71 Surface mounted  No Rate Rate Only  323-72 Surface mounted  Rate Only  323-72 Surface mounted  No Rate Rate Only  323-72 Surface mounted  Rate Only  323-73 Supply Deliver and installation of Cu Conductors  Supply and delivery Installation  Meter Supply and delivery Installation  Meter Rate Rate Only  Rate Rate Only  Rate Rate Only  Rate Rate Rate Only  Rate Rate Rate Only  Rate Rate Rate Only  Rate Rate Rate Only  Rate Rate Rate Only  Rate Rate Rate Only  Rate Rate Rate Only  Rate Rate Rate Only  Rate Rate Rate Rate Rate Rate Rate Rat			UNIT	QTY	TENDE	R VALUE
Supply, delivery and installation of PVC conduits, surface mounted in ceiling voids and fixer to waits or cast-in or built into walls, including all fixing materials, bends.  2013.1 Supply and delivery  Installation  Meter 220  Supply and delivery  Installation  Supply and install conduit droppers chased or built into wall, consisting of 3 x 25mm dia 2 x 20mm dia from wire basket & trunking in ceiling void to power skirting out.  1.6mm draw wires  Supply and delivery  Installation  No 25  Supply and delivery  Installation  ACCESSORIES  Supply and delivery  Installation  Supply and delivery  Installation  16 A, 3-pin double white SSO plus triple slimline 16A type 164-2  20.3.5   Telush Mounted in wall box  Surface mounted  No Rate Rate Only  16 A, 3-pin double white SSO  20.3.5   Telush Mounted in SSO  20.3.5   Telush Mounted in SSO  20.3.5   Telush Mounted in SSO  20.3.5   Telush Mounted in SSO  20.3.5   Telush Mounted in SSO  20.3.5   Telush Mounted in SSO  20.3.5   Telush Mounted in SSO  20.3.5   Telush Mounted in SSO  20.3.5   Telush Mounted in SSO  20.3.5   Telush Mounted in SSO  20.3.6   Telush Mounted in SSO  20.3.7   Amounted in SSO  20.3.7   Amounted in SSO  20.3.8   Telush Mounted in SSO  20.3.8   Telush Mounted in SSO  20.3.9   Telush Mounted in SSO  20.3.7   Amounted in SSO  20.3.7   Amounted in SSO  20.3.7   2.5mm* PVC insulated conductor  Supply and delivery  Installation  Meter Rate Only  Meter Rate Only  Meter Rate Only  Meter Rate Chil  Rate Only  Amounted core Surfa (For HVAC)  Supply and delivery  Installation  Meter Rate Chil  Rate Only  Rate Only  Rate Chil  Rate Only  Rate Chil  Rate Only  Rate Chil  Rate Only  Rate Chil  Rate Only  Rate Chil  Rate Only  Rate Chil  Rate Only  Rate Chil  Rate Only  Rate Chil  Rate Only  Rate Chil  Rate Only  Rate Chil  Rate Only  Rate Chil  Rate Only  Rate Chil  Rate Only  Rate Chil  Rate Only  Rate Chil  Rate Only  Rate Chil  Rate Only  Rate Chil  Rate Only  Rate Chil  Rate Chil  Rate Chil  Rate Only  Rate Chil  Rate Chil  Rate Chil  Rate Chil  Rate Chil  R	ITEM	DESCRIPTION			RATE	AMOUNT
Supply, delivery and installation of PVC conduits, surface mounted in ceiling voids and fixer to waits or cast-in or built into walls, including all fixing materials, bends.  2013.1 Supply and delivery  Installation  Meter 220  Supply and delivery  Installation  Supply and install conduit droppers chased or built into wall, consisting of 3 x 25mm dia 2 x 20mm dia from wire basket & trunking in ceiling void to power skirting out.  1.6mm draw wires  Supply and delivery  Installation  No 25  Supply and delivery  Installation  ACCESSORIES  Supply and delivery  Installation  Supply and delivery  Installation  16 A, 3-pin double white SSO plus triple slimline 16A type 164-2  20.3.5   Telush Mounted in wall box  Surface mounted  No Rate Rate Only  16 A, 3-pin double white SSO  20.3.5   Telush Mounted in SSO  20.3.5   Telush Mounted in SSO  20.3.5   Telush Mounted in SSO  20.3.5   Telush Mounted in SSO  20.3.5   Telush Mounted in SSO  20.3.5   Telush Mounted in SSO  20.3.5   Telush Mounted in SSO  20.3.5   Telush Mounted in SSO  20.3.5   Telush Mounted in SSO  20.3.5   Telush Mounted in SSO  20.3.6   Telush Mounted in SSO  20.3.7   Amounted in SSO  20.3.7   Amounted in SSO  20.3.8   Telush Mounted in SSO  20.3.8   Telush Mounted in SSO  20.3.9   Telush Mounted in SSO  20.3.7   Amounted in SSO  20.3.7   Amounted in SSO  20.3.7   2.5mm* PVC insulated conductor  Supply and delivery  Installation  Meter Rate Only  Meter Rate Only  Meter Rate Only  Meter Rate Chil  Rate Only  Amounted core Surfa (For HVAC)  Supply and delivery  Installation  Meter Rate Chil  Rate Only  Rate Only  Rate Chil  Rate Only  Rate Chil  Rate Only  Rate Chil  Rate Only  Rate Chil  Rate Only  Rate Chil  Rate Only  Rate Chil  Rate Only  Rate Chil  Rate Only  Rate Chil  Rate Only  Rate Chil  Rate Only  Rate Chil  Rate Only  Rate Chil  Rate Only  Rate Chil  Rate Only  Rate Chil  Rate Only  Rate Chil  Rate Only  Rate Chil  Rate Only  Rate Chil  Rate Only  Rate Chil  Rate Chil  Rate Chil  Rate Only  Rate Chil  Rate Chil  Rate Chil  Rate Chil  Rate Chil  R		WIREWAYS				
reminisations, draw boxes, etc.  20.31 20.32 20.32 20.32 20.33 20.32 20.33 20.		WINCEWAIS				
29.3.1   Common diameter   Supply and delivery   Common diameter   Supply and delivery   Common diameter   Common diamet						
2013   2015						
29.3.2 Supply, and delivery installation  29.3.2 Supply and install conduit droppers chased or built into wall, consisting of 3 x 25mm dia 8.2 x 20mm dia from wire basket & trunking in celling void to power skirting c/w. 16mm draw wires  29.3.3 Supply, delivery and installation of Conduit outlets boxes c/w locknuts and bushes built into brick or cast into concrete or surface mounted, c/w applicable cover  29.3.1 Supply, delivery and installation of Socket outlets  29.3.2 Supply, delivery and installation of socket outlets  29.3.4 Supply, delivery and installation of socket outlets  29.3.4 Supply, delivery and installation of socket outlets  29.3.4 Supply delivery and installation of socket outlets  29.3.4 Supply delivery and installation of socket outlets  29.3.4 Supply delivery and installation of socket outlets  29.3.4 Supply delivery and installation of socket outlets  29.3.4 Supply delivery and installation of socket outlets  29.3.4 Supply delivery and installation of socket outlets  29.3.4 Supply delivery and installation of socket outlets  29.3.4 Supply delivery and installation of socket outlets  29.3.4 Supply delivery and installation of socket outlets  29.3.4 Supply delivery and installation of socket outlets  29.3.4 Supply delivery and installation of socket outlets  29.3.5 Supply and delivery and socket outlets  29.3.6 Fush Mounted in 100 X 100 (HVAC)  29.3.6 Rate  29.3.7 Supply and delivery  29.						
Installation Meter 220  Installation Meter 220  Installation Meter 220  Installation Meter 220  Installation Meter 220  Installation Meter 220  Installation Meter 220  Installation Meter 220  Installation Meter 220  Installation Meter 220  Installation Meter 220  Installation Meter 220  Installation Meter 220  Installation Meter 220  Installation Meter 220  Installation Meter 220  Installation Meter 220  Installation Meter 220  Installation No 25  Installation No 25  Installation No 25  Installation No 25  Installation No 25  Installation No 25  Installation No 25  Installation No 25  Installation No 25  Installation No 25  Installation No 26  Installation No 26  Installation No 26  Installation No 27  Installation N						
29.3.2 Supply and install conduit droppers chased or built into wall, consisting of 3 x 25mm, dia 8 2 x 20mm dia from wire basket 8 trunking in celling void to power skirting c/w. 1,6mm draw wires  Supply, delivery and installation of Conduit outlets boxes c/w locknuts and bushes built into brick or cast into concrete or surface mounted, c/w applicable cover into brick or cast into concrete or surface mounted, c/w applicable cover into brick or cast into concrete or surface mounted, c/w applicable cover into brick or cast into concrete or surface mounted, c/w applicable cover into brick or cast into concrete or surface mounted, c/w applicable cover into brick or cast into concrete or surface mounted.  22.3.1 Supply, delivery and installation of socket outlets 15 Supply, delivery and installation of socket outlets 16 A 3-pin standard white SSO plus triple slimline 16A type 164-2 17 Suplay and delivery installation of socket outlets 18 Surface mounted 18 No Rate Rate Only 18 Surface mounted 19 No Rate Rate Only 18 Surface mounted 19 No Rate Rate Only 18 Surface mounted 19 No Rate Rate Only 18 Surface mounted 10 No Rate Rate Only 18 Surface mounted 10 No Rate Rate Only 18 Surface mounted 10 No Rate Rate Only 18 Surface mounted 10 No Rate Rate Only 18 Surface mounted 10 No Rate Rate Only 18 Surface mounted 10 No Rate Rate Only 18 Surface mounted 10 No Rate Rate Only 18 Surface mounted 10 No Rate Rate Only 18 Surface mounted 10 No Rate Rate Only 18 Surface mounted 10 No Rate Rate Only 18 Surface mounted 10 No Rate Rate Only 18 Surface mounted 10 No Rate Rate Only 18 Surface mounted 10 No Rate Rate Only 18 Surface mounted 10 No Rate Rate Only 18 Surface mounted 10 No Rate Rate Only 18 Surface mounted 10 No Rate Rate Only 18 Surface mounted 19 No Rate Rate Only 18 Surface mounted 10 No Rate Rate Only 18 Surface mounted 10 No Rate Rate Only 18 Surface mounted 19 No Rate Rate Only 18 Surface mounted 19 No Rate Rate Only 18 Surface mounted 19 No Rate Rate Only 18 Surface Mounted Rate Rate Only 18 Surface Rate Rate Only 1						
dia 8.2 x 20mm dia from wire basket & trunking in ceiling void to power skirting o'w  1.6mm draw wires  Supply, delivery and installation of Conduit outlets boxes o'w locknuts and bushes built into brick or cast into concrete or surface mounted. c'w applicable cover  100 x 100 x 50 mm  29.33.1  Supply, delivery and installation of socket outlets 16 A, 3-pin standard white SSO plus triple slimitine 16A type 164-2 129.34.1  Hush Mounted in wallow mounted No Rate Rate Only 29.34.4  Power skirting mounted No Rate Rate Only 29.35.5  16 A, 3-pin dedicated red SSO 29.35.5  16 A, 3-pin dedicated red SSO 29.35.5  16 A, 3-pin dedicated red SSO 29.35.5  16 A, 3-pin dedicated red SSO 29.35.5  16 A, 3-pin dedicated red SSO 29.35.5  16 A, 3-pin dedicated red SSO 29.35.5  17 Bush Mounted in 100 X 100 (HVAC) No Rate Rate Only 29.37.5  29.37.7  29.37.7  29.37.7  29.37.7  29.37.7  29.37.7  29.37.7  29.37.7  20.37.7	29.3.2.2	Installation	weter	220		
dia & 2 x 20mm dia from wire basket & trunking in ceiling void to power skirting c/w  1.6mm draw wires  Supply, delivery and installation of Conduit outlets boxes c/w locknuts and bushes built into brick or cast into concrete or surface mounted, c/w applicable cover  100 x 50 mm  Supply and delivery installation  ACCESSORIES  Supply, delivery and installation of socket outlets  101 x 100 x 50 mm  Supply and delivery installation  ACCESSORIES  ACCESSORIES  Supply, delivery and installation of socket outlets  102 x 102	29.3.2	Supply and install conduit droppers chased or built into wall, consisting of 3 x 25mm				
Supply, delivery and installation of Conduit outlets boxes c/w locknuts and bushes built into brick or cast into concrete or surface mounted, c/w applicable cover  10						
29.3.1   100 brick or cast into concrete or surface mounted, of wapplicable cover   100 x 50 mm   10		1.6mm draw wires	No	25		
29.3.1   100 brick or cast into concrete or surface mounted, of wapplicable cover   100 x 50 mm   10		Supply delivery and installation of Conduit outlets have a during and hyphon built				
28.3.1   100 x 100 x 50 mm   25   28.3.1   28.3.			-			
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29.3.5   16 A, 3-pin double white SSO   Flush Mounted   No   Rate   Rate Only   Rate   Rate   Rate Only   Rate	29.3.4.4					Rate Only
Flush Mounted Surface mounted  16 A, 3-pin dedicated red SSO Flush Mounted in floorbox Power skirting mounted, 45 degree (including plug top)  WIRING AND TERMINALS  29.3.7 29.3.7.1 29.3.7.2 29.3.7.2 29.3.7.2 29.3.7.3 Supply, Deliver and installation of Cu Conductors: 29.3.7.2 29.3.7.2 29.3.7.3 Supply and delivery Installation 4mm² 4 core Surfix (For HVAC) Supply and delivery Installation 4mm² 4 core Surfix (For HVAC) Supply and delivery Installation 29.3.7.4 29.3.7.5 Supply and delivery Installation 4mm² 4 core Surfix (For HVAC) Supply and delivery Installation 29.3.7.5 Supply and delivery Installation 29.3.7.6 Supply and delivery Installation 29.3.7.7 Supply and delivery Installation 29.3.7.7 Supply and delivery Installation 4mm² 4 core Surfix (For HVAC) Supply and delivery Installation 4mm² 4 core Surfix (For HVAC) Supply and delivery Installation 4mm² 4 core Surfix (For HVAC) Supply and delivery Installation 4mm² 4 core Surfix (For HVAC) Supply and delivery Installation 4mm² 4 core Surfix (For HVAC) Supply and delivery Installation 4mm² 4 core Surfix (For HVAC) Supply and delivery Installation 4mm² 4 core Surfix (For HVAC) Supply and delivery Installation 4mm² 4 core Surfix (For HVAC) Supply and delivery Installation 4mm² 4 core Surfix (For HVAC) Supply and delivery Installation 4mm² 4 core Surfix (For HVAC) Supply and delivery Installation 4mm² 4 core Surfix (For HVAC) Supply and delivery Installation 4mm² 4 core Surfix (For HVAC) Supply and delivery Installation 4mm² 4 core Surfix (For HVAC) Supply and delivery Installation 4mm² 4 core Surfix (For HVAC) 4mr² 4 core Surfix (For HVAC) 4mr² 5 core Surfix (For HVAC) 4mr² 5 core Surfix (For HVAC) 4mr² 6 core Surfix (For HVAC) 4mr² 6 core Surfix (For HVAC) 4mr² 6 core Surfix (For HVAC) 4mr² 6 core Surfix (For HVAC) 4mr² 6 core Surfix (For HVAC) 4mr² 6 core Surfix (For HVAC) 4mr² 6 core Surfix (For HVAC) 4mr² 6 core Surfix (For HVAC) 4mr² 6 core Surfix (For HVAC) 4mr² 6 core Surfix (For HVAC) 4mr² 6 core Surfix (For HVAC) 5mr² 6 core Surfix (For HVAC) 5mr² 6 core						,
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Power skirting mounted, 45 degree (including plug top)  WIRING AND TERMINALS  29.3.7.1  Supply, Deliver and installation of Cu Conductors: 29.3.7.1  29.3.7.2  29.3.7.2  29.3.7.2  29.3.7.2  29.3.7.2  Supply and delivery Installation  4mm² PVC insulated conductor  Supply and delivery Installation  4mm² 4 core Surfix (For HVAC)  Supply and delivery Installation  29.3.7.4  29.3.7.5  29.3.7.5  29.3.7.5  Supply and delivery Installation  29.3.7.6  29.3.7.7  And the mate only and delivery Installation  29.3.7.8  Supply and delivery Installation  29.3.7.9  Meter Rate Rate Only	29.3.6.1	Flush Mounted in 100 X 100 (HVAC)	No	Rate		Rate Only
WIRING AND TERMINALS  Supply, Deliver and installation of Cu Conductors: 29.3.7.1 29.3.7.2 29.3.7.2 29.3.7.2 29.3.7.2 29.3.7.2 29.3.7.2 29.3.7.3  Weter Rate Rate Only	29.3.6.2		No	Rate		Rate Only
29.3.7.1  Supply, Deliver and installation of Cu Conductors: 29.3.7.2 29.3.7.2 29.3.7.3 29.3.7.3 29.3.7.3 29.3.7.3 29.3.7.3 29.3.7.4 29.3.7.5 29.3.7.5 29.3.7.5 29.3.7.5 29.3.7.5 29.3.7.6 29.3.7.6 29.3.7.6 29.3.7.7 29.3.7.7 29.3.7.8 20.0 20.0 20.0 20.0 20.0 20.0 20.0 20	29.3.6.3	Power skirting mounted, 45 degree (including plug top)	No	Rate		Rate Only
29.3.7.1 2.5mm² PVC insulated conductor Supply and delivery Installation  4mm² PVC insulated conductor Supply and delivery Installation  4mm² 4 core Surfix (For HVAC) Supply and delivery Installation  4mm² 4 core Surfix (For HVAC) Supply and delivery Installation  4mm² 4 core Surfix (For HVAC) Supply and delivery Installation  29.3.7.4 2.5mm² PVC insulated earth Supply and delivery Installation  29.3.7.5 Supply and delivery Installation  29.3.7.6 Meter Supply and delivery Installation  29.3.7.7 Meter Supply and delivery Installation  29.3.7.8 Meter Supply and delivery Installation  29.3.7.9 Meter Supply and delivery Installation  29.3.7.1 Meter Supply and delivery Installation  29.3.7.2 Meter Supply and delivery Installation  29.3.7.5 Meter Supply and delivery Installation  29.3.7.6 Meter Supply and delivery Installation  29.3.7.7 Meter Supply and delivery Installation  29.3.7.8 Meter Supply and delivery Installation  29.3.7.9 Meter Supply and delivery Installation  29.3.7.1 Meter Supply and delivery Installation  29.3.7.2 Meter Supply and delivery Installation  29.3.7.5 Meter Supply and delivery Installation  29.3.7.6 Meter Supply and delivery Installation  29.3.7.7 Meter Supply and delivery Installation  30.5 Meter Supply and delivery Installation  40.5 Meter Supply and delivery Installation  40.5 Meter Supply and delivery Installation  40.5 Meter Supply and delivery Installation  40.5 Meter Supply and delivery Installation  40.5 Meter Supply and delivery Installation  40.5 Meter Supply and delivery Installation  40.5 Meter Supply and delivery Installation  40.5 Meter Supply and delivery Installation  40.5 Meter Supply and delivery Installation  40.5 Meter Supply and delivery Installation  40.5 Meter Supply and delivery Installation  40.5 Meter Supply and delivery Installation  40.5 Meter Supply and delivery Installation  40.5 Meter Supply and delivery Installation  40.5 Meter Supply and delivery Installation  40.5 Meter Supply and delivery Installation  40.5 Meter Supply and delivery Installation  40.5 Meter		WIRING AND TERMINALS				
29.3.7.1 2.5mm² PVC insulated conductor Supply and delivery Installation  4mm² PVC insulated conductor Supply and delivery Installation  4mm² 4 core Surfix (For HVAC) Supply and delivery Installation  4mm² 4 core Surfix (For HVAC) Supply and delivery Installation  4mm² 4 core Surfix (For HVAC) Supply and delivery Installation  29.3.7.4 2.5mm² PVC insulated earth Supply and delivery Installation  29.3.7.5 Supply and delivery Installation  29.3.7.6 Meter Supply and delivery Installation  29.3.7.7 Meter Supply and delivery Installation  29.3.7.8 Meter Supply and delivery Installation  29.3.7.9 Meter Supply and delivery Installation  29.3.7.1 Meter Supply and delivery Installation  29.3.7.2 Meter Supply and delivery Installation  29.3.7.5 Meter Supply and delivery Installation  29.3.7.6 Meter Supply and delivery Installation  29.3.7.7 Meter Supply and delivery Installation  29.3.7.8 Meter Supply and delivery Installation  29.3.7.9 Meter Supply and delivery Installation  29.3.7.1 Meter Supply and delivery Installation  29.3.7.2 Meter Supply and delivery Installation  29.3.7.5 Meter Supply and delivery Installation  29.3.7.6 Meter Supply and delivery Installation  29.3.7.7 Meter Supply and delivery Installation  30.5 Meter Supply and delivery Installation  40.5 Meter Supply and delivery Installation  40.5 Meter Supply and delivery Installation  40.5 Meter Supply and delivery Installation  40.5 Meter Supply and delivery Installation  40.5 Meter Supply and delivery Installation  40.5 Meter Supply and delivery Installation  40.5 Meter Supply and delivery Installation  40.5 Meter Supply and delivery Installation  40.5 Meter Supply and delivery Installation  40.5 Meter Supply and delivery Installation  40.5 Meter Supply and delivery Installation  40.5 Meter Supply and delivery Installation  40.5 Meter Supply and delivery Installation  40.5 Meter Supply and delivery Installation  40.5 Meter Supply and delivery Installation  40.5 Meter Supply and delivery Installation  40.5 Meter Supply and delivery Installation  40.5 Meter	29 3 7	Supply Deliver and installation of Cu Conductors:				
Supply and delivery Installation  4mm² PVC insulated conductor Supply and delivery Installation  4mm² 4 core Surfix (For HVAC) Supply and delivery Installation  4mm² 4 core Surfix (For HVAC) Supply and delivery Installation  29.3.7.4  29.3.7.4  Supply and delivery Installation  2.5mm² PVC insulated earth Supply and delivery Installation  2.5mm² bare copper earth wire Supply and delivery Installation  2.5mm² bare copper earth wire Supply and delivery Installation  3.5mm² bare copper earth wire Supply and delivery Installation  4.5mm² bare copper earth wire Supply and delivery Installation  4.5mm² bare copper earth wire Supply and delivery Installation  4.5mm² bare copper earth wire Supply and delivery Installation  4.5mm² bare copper earth wire Supply and delivery Installation  4.5mm² bare copper earth wire Supply and delivery Installation  4.5mm² bare copper earth wire Supply and delivery Installation  4.5mm² bare copper earth wire Supply and delivery Installation  4.5mm² bare copper earth wire Supply and delivery Installation  4.5mm² bare copper earth wire Supply and delivery Installation  4.5mm² bare copper earth wire Supply and delivery Installation  4.5mm² bare copper earth wire Supply and delivery Installation  4.5mm² bare copper earth wire Supply and delivery Installation  4.5mm² bare copper earth wire Supply and delivery Installation  4.5mm² bare copper earth wire Supply and delivery Installation						
29.3.7.2 4mm² PVC insulated conductor Supply and delivery Installation 4mm² 4 core Surfix (For HVAC) Supply and delivery Installation 29.3.7.4 2.5mm² PVC insulated earth Supply and delivery Installation 29.3.7.5 2.5mm² bare copper earth wire Supply and delivery Installation 29.3.7.5 2.5mm² bare copper earth wire Supply and delivery Installation 29.3.7.5 2.5mm² bare copper earth wire Supply and delivery Installation 29.3.7.5 2.5mm² bare copper earth wire Supply and delivery Installation 29.3.7.5 2.5mm² bare copper earth wire Supply and delivery Installation 29.3.7.5 2.5mm² bare copper earth wire Supply and delivery Installation 3 2.5mm² bare copper earth wire Supply and delivery Installation 3 2.5mm² bare copper earth wire Supply and delivery Installation 4 2.5mm² bare copper earth wire Supply and delivery Installation 4 2.5mm² bare copper earth wire Supply and delivery Installation 4 2.5mm² bare copper earth wire Supply and delivery Installation 4 2.5mm² bare copper earth wire Supply and delivery Installation 4 2.5mm² bare copper earth wire Supply and delivery Installation 4 2.5mm² bare copper earth wire Supply and delivery Installation 4 2.5mm² bare copper earth wire Supply and delivery Installation 5 2.5mm² bare copper earth wire Supply and delivery Installation 5 2.5mm² bare copper earth wire Supply and delivery Installation 5 2.5mm² bare copper earth wire Supply and delivery Installation 5 2.5mm² bare copper earth wire Supply and delivery Installation 5 2.5mm² bare copper earth wire Supply and delivery Installation 5 2.5mm² bare copper earth wire Supply and delivery Installation 5 2.5mm² bare copper earth wire 5 2.5mm² bare copper earth wire 6 2.5mm² bare copper earth wire 7 2.5mm² bare copper earth wire 8 2.5mm² bare copper earth wire 8 2.5mm² bare copper earth wire 8 2.5mm² bare copper earth wire 8 2.5mm² bare copper earth wire 8 2.5mm² bare copper earth wire 8 2.5mm² bare copper earth wire 8 2.5mm² bare copper earth wire 8 2.5mm² bare copper earth wire 8 2.5mm² bare copper earth wire 8 2.5mm² bare copper			Meter	250		
Supply and delivery Installation  4mm² 4 core Surfix (For HVAC) Supply and delivery Installation  29.3.7.4  29.3.7.5  29.3.7.5  Supply and delivery Installation  29.3.7.5  Amm² 4 core Surfix (For HVAC) Supply and delivery Installation  29.3.7.6  29.3.7.7  29.3.7.7  Amm² 4 core Surfix (For HVAC) Supply and delivery Installation  29.3.7.7  Amm² 4 core Surfix (For HVAC) Supply and delivery Installation  Meter Rate Rate Only R			Meter	250		
Installation  4mm² 4 core Surfix (For HVAC) Supply and delivery Installation  29.3.7.4  29.3.7.4  29.3.7.5  Installation  Meter Supply and delivery Installation  29.3.7.5  29.3.7.5  Installation  Ameter Supply and delivery Installation  29.3.7.5  Ameter Supply and delivery Installation  29.3.7.5  Installation  Ameter Supply and delivery Installation  Ameter Suppl	29.3.7.2	4mm² PVC insulated conductor				
29.3.7.3 4mm² 4 core Surfix (For HVAC) Supply and delivery Installation 29.3.7.4 2.5mm² PVC insulated earth Supply and delivery Installation 29.3.7.5 2.5mm² bare copper earth wire Supply and delivery Installation 29.3.7.5 2.5mm² bare copper earth wire Supply and delivery Installation 2.5mm² bare copper earth wire Supply and delivery Installation 3.5mm² bare copper earth wire Supply and delivery Installation 3.5mm² bare copper earth wire 3.5mm² bare cop		, ,,,				Rate Only
Supply and delivery Installation 29.3.7.4  Supply and delivery Installation 2.5mm² PVC insulated earth Supply and delivery Installation 29.3.7.5  Supply and delivery  Supply and delivery Installation  29.3.7.5  Supply and delivery Installation  Meter Rate Rate Rate Only Rate Only Rate Only Rate Only Rate Only Rate Only Rate Only Rate Only Rate Only Rate Only Rate Only Rate Only Rate Installation  Meter Rate Rate Rate Installation  Meter Rate Rate Installation  Meter Rate Installation  Meter Rate Installation  Meter Rate Installation  Meter Rate Installation  Meter Rate Installation  Meter Rate Installation  Meter Rate Installation  Meter Rate Installation  Meter Rate Installation  Meter Rate Installation  Meter Rate Installation  Rate Only Rate O	00 0 7 0		Meter	Rate		Rate Only
Installation 29.3.7.4  Installation 2.5mm² PVC insulated earth Supply and delivery Installation 29.3.7.5  Supply and delivery Installation 2.5mm² bare copper earth wire Supply and delivery Installation  Meter Rate Rate Only Ra	29.3.7.3		Motor	Poto		Pata Only
29.3.7.4 2.5mm² PVC insulated earth Supply and delivery Installation 29.3.7.5 Supply and delivery Supply and delivery Installation Meter Rate Rate Only Rate						•
Supply and delivery Installation 29.3.7.5 Supply and delivery Supply and delivery Installation  Meter Rate Rate Only	29.3.7.4		Wictor	rato		rtate Offiny
Installation 29.3.7.5 Installation 29.3.7.5 Installation  Installation  Installation  Meter Rate Rate Only  Meter 125  Meter 125  Meter 125  Meter 125			Meter	Rate		Rate Only
Supply and delivery Installation  Meter Meter 125 125		, ,,,				Rate Only
Installation Meter 125	29.3.7.5					
		Installation	Meter	125		
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TOTAL PILL CAPPUTS FORWARD TO TEAUSE SWITTEN						
TOTAL PILL CAPPUTE FORWARD TO TENDER CULTURE						
TOTAL PULL CAPPUIS SORWARD TO TENDER CULTURE						
		DILL CARRIED FORWARD TO TENDED SHAPE				

TOTAL BILL CARRIED FORWARD TO TENDER SUMMARY

MOEDWIL COMBINED SCHOOL - TYPE 1A HOSTEL

SUBJECT: BILL OF QUANTITIES

SUMMARY OF SCHEDULE OF QUANTITIES

ITEM	DESCRIPTION	TENDER AMOUNT
1	BILL No.29.1 - DISTRIBUTION BOARDS	
2	BILL No.29.2 - LIGHTING INSTALLATION	
3	BILL No.29.3: SMALL POWER INSTALLATION	
4	TOTAL FOR BILL No.29	

BILL N	IO. 21
BLOCK 33 - GL	JARD HOUSE

# BLOCK 33 - GUARD HOUSE SUBJECT : BILL OF QUANTITIES

## BILL No.35.1 - DISTRIBUTION BOARDS

		UNIT	QTY	TENDE	R VALUE AMOUNT
ITEM	DESCRIPTION Supply, Install, test and commision Sub-distribution boards - surface mounted			RATE	AMOUNT
	distribution board cupboards, c/w all switchgear and breakers indicated on the				
	drawings				
35.1.1	DD 22	Na	4		
33.1.1	DB-33	No	1		
35.1.2	Lable all circuits and install signage to the panels	sum	1		
35.1.3	Out! Factor of Ourse! Factor		4		
33.1.3	Certificate of Compliance	sum	1		
TOT::	FOR DULL GARRIED FORWARD TO GUMMARY				
	FOR BILL CARRIED FORWARD TO SUMMARY				

**BLOCK 33 - GUARD HOUSE** 

## **SUBJECT: BILL OF QUANTITIES**

## **BILL No.35.2 - LIGHTING INSTALLATION**

		UNIT	QTY		R VALUE
ITEM	DESCRIPTION WIREWAYS			RATE	AMOUNT
	WIREWATS				
	Supply and Install Trunking				
35.3.1	Supply and install P8300 trunking suspended from slab and trusses in ceiling void.				
35.3.1.1	Supply and delivery	Meter	Rate		Rate Only
35.3.1.2	Installation	Meter	Rate		Rate Only
	Supply, delivery and installation of PVC conduits, surface mounted in ceiling voids and	-			
	fixed to walls or cast-in or built into walls, including all fixing materials, bends,				
35.3.2	terminations, draw boxes, etc. 20mm diameter				
35.3.2.1	Supply and delivery	Meter	20		
35.3.2.2	Installation	Meter	20		
		· · · · · · · ·	20		
	Supply, delivery and installation of Conduit outlets boxes c/w locknuts and bushes built				
	into brick or cast into concrete or surface mounted				
35.3.3	100 x 50 x 50 mm				
35.3.3.1	Supply and delivery	No	2		
	Installation	No	2		
35.3.4 35.3.4.1	65mm round box	No	0		
35.3.4.1	Supply and delivery Installation	No No	8 8		
33.3.4.2	IIIStaliation	INO	O		
	ACCESSORIES				
35.3.5	Supply and Install accessories to boxes				
35.3.5.1	5A, 3-pin socket outlets to trunking	No	Rate		Rate Only
35.3.5.2	16Amp one lever one way light switch	No	2		
35.3.5.3	16Amp one lever two way light switch	No	Rate		Rate Only
35.3.5.4	16Amp two lever one way light switch	No	Rate		Rate Only
35.3.5.5 35.2.5.7	16Amp two lever two way light switch	No	Rate		Rate Only
35.2.5.7	Photocell Ceiling mounted occupancy sensor	No No	1 1		
00.2.0.0	Centing mounted occupancy sensor	INO	'		
	WIRING AND TERMINALS				
35.3.6	Supply, Deliver and installation of Cu Conductors:				
35.3.6.1	4mm² PVC insulated conductor		Б.		Data Oak
	Supply and delivery Installation	Meter	Rate		Rate Only Rate Only
35.3.6.2	2.5mm² PVC insulated conductor	Meter	Rate		Rate Offig
	Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
35.3.6.3	2,5mm <sup>2</sup> Heat resistant conductor				
	Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
35.3.6.4	2,5mm² bare copper earth wire				
	Supply and delivery	Meter	Rate		Rate Only
35.3.6.4	Installation	Meter	Rate		Rate Only
33.3.0.4	1.5mm² surfix twin and earth Supply and delivery	Meter	20		
	Installation	Meter	20		
	motanation	WICTO	20		
	TAL FOR THIS PAGE CARRIED FORWARD				
BILL No	5.35.2 - LIGHTING INSTALLATION				

ITEM	DESCRIPTION	UNIT	QTY	TENDE RATE	R VALUE AMOUNT
	OTAL FROM PREVIOUS PAGE			IVALL	Amount
30D-10	TAE TROM TREVIOUS FAGE				
	LIGHT FITTINGS				
35.3.7	Supply, deliver, install, connect, test and commissioning the following light fittings				
35.3.7.1	TYPE F01 - 1200mm, 20W surface mounted LED batten light fitting with rolled mild steel body and a white epoxy powder coated finish	No	1		
35.3.7.2	TYPE C1 - 83mm diameter LED downlight ceiling recessed Die-cast aluminium body with acrylic lens(8w cool white)	No	1		
35.3.7.3	TYPE W1 - Wall mounted bulkhead LED light fitting with LM6 die cast and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp	No	1		
	FOR BILL CARRIED FORWARD TO SUMMARY				

BLOCK 33 - GUARD HOUSE SUBJECT : BILL OF QUANTITIES

## **BILL No.35.3: SMALL POWER INSTALLATION**

		UNIT	QTY		R VALUE
ITEM	DESCRIPTION			RATE	AMOUNT
	MIDEMANO				
	WIREWAYS				
	Supply, delivery and installation of PVC conduits, surface mounted in ceiling voids and				
	fixed to walls or cast-in or built into walls, including all fixing materials, bends,				
	terminations, draw boxes, etc.				
35.3.1	20mm diameter				
35.3.1.1	Supply and delivery	Meter	Rate		Rate Only
35.3.1.2	Installation	Meter	Rate		Rate Only
05.0.0					
35.3.2	Supply and install conduit droppers chased or built into wall, consisting of 3 x 25mm				
	dia & 2 x 20mm dia from wire basket & trunking in ceiling void to power skirting c/w 1.6mm draw wires	No	5		
	1.0mm draw wires	140	3		
	Supply, delivery and installation of Conduit outlets boxes c/w locknuts and bushes built				
	into brick or cast into concrete or surface mounted, c/w applicable cover				
35.3.3	100 x 100 x 50 mm				
35.3.3.1	Supply and delivery	No	20		
35.3.3.2	Installation	No	20		
	ACCESSORIES				
	ACCESSORIES				
	Supply, delivery and installation of socket outlets				
35.3.4	16 A, 3-pin standard white SSO plus triple slimline 16A type 164-2				
35.3.4.1	Flush Mounted in wall box	No	3		
35.3.4.2	Mounted in floorbox	No	Rate		Rate Only
35.3.4.3	Surface mounted	No	Rate		Rate Only
35.3.4.4	Power skirting mounted	No	Rate		Rate Only
35.3.5	16 A, 3-pin double white SSO				
35.3.5.1	Flush Mounted	No	Rate		Rate Only
35.3.5.2	Surface mounted	No	Rate		Rate Only
35.3.6	16 A, 3-pin dedicated red SSO		Б.		5 . 6 .
35.3.6.1 35.3.6.2	Flush Mounted in 100 X 100 (HVAC)	No	Rate		Rate Only
35.3.6.3	Mounted in floorbox Power skirting mounted, 45 degree (including plug top)	No No	Rate Rate		Rate Only Rate Only
00.0.0.0	Tower skilling mounted, 45 degree (including plug top)	INO	Nate		itale Only
	WIRING AND TERMINALS				
35.3.7	Supply, Deliver and installation of Cu Conductors:				
35.3.7.1	2.5mm² PVC insulated conductor				
	Supply and delivery	Meter	20		
	Installation	Meter	20		
35.3.7.2	4mm² PVC insulated conductor		Б.		5 . 6 .
	Supply and delivery Installation	Meter	Rate		Rate Only
35.3.7.3	4mm² 4 core Surfix (For HVAC)	Meter	Rate		Rate Only
00.0.7.0	Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
35.3.7.4	2.5mm² PVC insulated earth				
	Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
35.3.7.5	1.5mm² bare copper earth wire				
	Supply and delivery	Meter	10		
	Installation	Meter	10		
TOTAL	FOR BILL CARRIED FORWARD TO SUMMARY			•	

TOTAL FOR BILL CARRIED FORWARD TO SUMMARY BLOCK 33 - GUARD HOUSE

SUBJECT: BILL OF QUANTITIES

SUMMARY OF SCHEDULE OF QUANTITIES

ITEM	DESCRIPTION	TENDER
1	BILL No.35.1 - DISTRIBUTION BOARDS	
2	BILL No.35.2 - LIGHTING INSTALLATION	
3	BILL No.35.3: SMALL POWER INSTALLATION	
4	TOTAL FOR BILL No.35	

BILL NO. 22	
BLOCK M - GUARD HOUSE	

# BLOCK M - GUARD HOUSE SUBJECT : BILL OF QUANTITIES

## BILL No.35.1 - DISTRIBUTION BOARDS

		UNIT	QTY	TENDE	R VALUE AMOUNT
ITEM	DESCRIPTION Supply, Install, test and commision Sub-distribution boards - surface mounted			RATE	AMOUNT
	distribution board cupboards, c/w all switchgear and breakers indicated on the				
	drawings				
36.1.1	рв-м	No	1		
36.1.2	Lable all circuits and install signage to the panels	sum	1		
36.1.3	Certificate of Compliance	sum	1		
ΤΟΤΔΙ	FOR BILL CARRIED FORWARD TO SUMMARY				
	M CHARD HOUSE				L

BLOCK M - GUARD HOUSE

## **SUBJECT: BILL OF QUANTITIES**

## **BILL No.35.2 - LIGHTING INSTALLATION**

		UNIT	QTY		R VALUE
ITEM	DESCRIPTION   WIREWAYS			RATE	AMOUNT
	WIREWATS				
	Supply and Install Trunking				
36.3.1	Supply and install P8300 trunking suspended from slab and trusses in ceiling void.				
36.3.1.1	Supply and delivery	Meter	Rate		Rate Only
36.3.1.2	Installation	Meter	Rate		Rate Only
	County delivery and installation of DVC conduits confere an extend in calling unide				
	Supply, delivery and installation of PVC conduits, surface mounted in ceiling voids and fixed to walls or cast-in or built into walls, including all fixing materials, bends,	-			
	terminations, draw boxes, etc.				
36.3.2	20mm diameter				
36.3.2.1	Supply and delivery	Meter	20		
36.3.2.2	Installation	Meter	20		
	Supply, delivery and installation of Conduit outlets boxes c/w locknuts and bushes built into brick or cast into concrete or surface mounted	-			
36.3.3	100 x 50 x 50 mm				
36.3.3.1	Supply and delivery	No	2		
36.3.3.2	Installation	No	2		
36.3.4	65mm round box				
36.3.4.1	Supply and delivery	No	8		
36.3.4.2	Installation	No	8		
	ACCESSORIES				
	ACCESSORIES				
36.3.5	Supply and Install accessories to boxes				
36.3.5.1	5A, 3-pin socket outlets to trunking	No	Rate		Rate Only
36.3.5.2	16Amp one lever one way light switch	No	2		
36.3.5.3	16Amp one lever two way light switch	No	Rate		Rate Only
36.3.5.4	16Amp two lever one way light switch	No	Rate		Rate Only
36.3.5.5	16Amp two lever two way light switch	No	Rate		Rate Only
36.3.5.6 36.3.5.7	Photocell  Colling mounted accurage according to the control of th	No	1 1		
30.3.3.7	Ceiling mounted occupancy sensor	No	'		
	WIRING AND TERMINALS				
36.3.6	Supply, Deliver and installation of Cu Conductors:				
36.3.6.1	4mm² PVC insulated conductor				
	Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
36.3.6.2	2,5mm² PVC insulated conductor		_		
	Supply and delivery	Meter	Rate		Rate Only
36.3.6.3	Installation 2,5mm² Heat resistant conductor	Meter	Rate		Rate Only
30.3.0.3	Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
36.3.6.4	2,5mm² bare copper earth wire				
	Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
36.3.6.4	1.5mm² surfix twin and earth				
	Supply and delivery	Meter	20		
	Installation	Meter	20		
CUD T	TAL FOR THE PACE CARRIED FORWARD				
	DTAL FOR THIS PAGE CARRIED FORWARD  0.35.2 - LIGHTING INSTALLATION				
JILL IN	DIOUZ EIGHINO INCIAELATION				

		UNIT	QTY		R VALUE
ITEM	DESCRIPTION			RATE	AMOUNT
SUB-TOTAL FROM PREVIOUS PAGE					
	LIGHT FITTINGS				
36.3.7	Supply, deliver, install, connect, test and commissioning the following light fittings				
36.3.7.1	TYPE F01 - 1200mm, 20W surface mounted LED batten light fitting with rolled mild steel body and a white epoxy powder coated finish	No	1		
36.3.7.2	TYPE C1 - 83mm diameter LED downlight ceiling recessed Die-cast aluminium body with acrylic lens(8w cool white)	No	1		
36.3.7.3	TYPE W1 - Wall mounted bulkhead LED light fitting with LM6 die cast and extruded aluminium body and opal acrylic diffuser fitted with 17W LED lamp	No	1		
TOTAL	FOR BILL CARRIED FORWARD TO SUMMARY	•	•	•	

BLOCK M - GUARD HOUSE
SUBJECT: BILL OF QUANTITIES

## **BILL No.35.3: SMALL POWER INSTALLATION**

		UNIT	QTY		R VALUE
ITEM	DESCRIPTION			RATE	AMOUNT
	WIREWAYS				
	WIREWATS				
	Supply, delivery and installation of PVC conduits, surface mounted in ceiling voids and				
	fixed to walls or cast-in or built into walls, including all fixing materials, bends,				
	terminations, draw boxes, etc.				
36.3.1	20mm diameter				
36.3.1.1	Supply and delivery	Meter	Rate		Rate Only
36.3.1.2	Installation	Meter	Rate		Rate Only
36.3.2	Supply and install conduit drappers shaped or built into wall, consisting of 2 v 25mm				
30.3.2	Supply and install conduit droppers chased or built into wall, consisting of 3 x 25mm dia & 2 x 20mm dia from wire basket & trunking in ceiling void to power skirting c/w				
	1.6mm draw wires	No	5		
	Supply, delivery and installation of Conduit outlets boxes c/w locknuts and bushes built				
	into brick or cast into concrete or surface mounted, c/w applicable cover				
36.3.3	100 x 100 x 50 mm				
36.3.3.1	Supply and delivery	No	20		
36.3.3.2	Installation	No	20		
	ACCESSORIES				
	Supply, delivery and installation of socket outlets				
36.3.4	16 A, 3-pin standard white SSO plus triple slimline 16A type 164-2				
36.3.4.1	Flush Mounted in wall box	No	3		
36.3.4.2	Mounted in floorbox	No	Rate		Rate Only
36.3.4.3 36.3.4.4	Surface mounted	No No	Rate Rate		Rate Only Rate Only
30.3.4.4	Power skirting mounted	INO	Kale		Rate Offig
36.3.5	16 A, 3-pin double white SSO				
36.3.5.1	Flush Mounted	No	Rate		Rate Only
36.3.5.2	Surface mounted	No	Rate		Rate Only
36.3.6 36.3.6.1	16 A, 3-pin dedicated red SSO	NIa	Data		Data Oak
36.3.6.1	Flush Mounted in 100 X 100 (HVAC) Mounted in floorbox	No No	Rate Rate		Rate Only Rate Only
36.3.6.3	Power skirting mounted, 45 degree (including plug top)	No	Rate		Rate Only
00.0.0.0	l ower skirting mounted, 45 degree (including plug top)	140	Nate		Rate Offig
	WIRING AND TERMINALS				
36.3.7	Supply, Deliver and installation of Cu Conductors:				
36.3.7.1	2.5mm² PVC insulated conductor				
	Supply and delivery	Meter	20		
	Installation	Meter	20		
36.3.7.2	4mm² PVC insulated conductor				
	Supply and delivery	Meter	Rate		Rate Only
36.3.7.3	Installation	Meter	Rate		Rate Only
30.3.7.3	4mm² 4 core Surfix (For HVAC) Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
36.3.7.4	2.5mm² PVC insulated earth	Wictor	itato		reace Only
	Supply and delivery	Meter	Rate		Rate Only
	Installation	Meter	Rate		Rate Only
36.3.7.5	1.5mm² bare copper earth wire				
	Supply and delivery	Meter	10		
	Installation	Meter	10		
TOTAL	FOR BILL CARRIED FORWARD TO SUMMARY	1		<u>I</u>	

TOTAL FOR BILL CARRIED FORWARD TO SUMMARY BLOCK M - GUARD HOUSE

SUBJECT: BILL OF QUANTITIES

SUMMARY OF SCHEDULE OF QUANTITIES

ITEM	DESCRIPTION	TENDER
1	BILL No.35.1 - DISTRIBUTION BOARDS	
2	BILL No.35.2 - LIGHTING INSTALLATION	
3	BILL No.35.3: SMALL POWER INSTALLATION	
4	TOTAL FOR BILL No.35	

MOEDWIL COMBINED SCHOOL SUBJECT: BILL OF QUANTITIES

**BILL No.37 - SECURITY** 

		UNIT	OTV	TENDER	R VALUE
ITEM	DESCRIPTION	ONIT	QTY	RATE	AMOUNT
11 -141	DEGGINI TION			IOTIL	Amooni
37,1	Supply, delivery and installation of PVC conduit, surface				
	mounted in ceiling voids and fixed to walls or cast-in or				
	built into walls, including all fixing materials, bends,				
	terminations, draw boxes, etc.				
37.1.1	32mm diameter				
37.1.1.1	Supply and delivery	Meter	220		
37.1.1.2	Installation	Meter	680		
37.1.2	25mm diameter				
37.1.2.1	Supply and delivery	Meter	240		
37.1.2.2	Installation	Meter	240		
37,2	Supply, installation and delivery of P2000 trunking in				
	ceiling void				
37.2.1	Supply and delivery	Meter	80		
37.2.2	Installation	Meter	80		
37,3	Supply, delivery and installation of Conduit outlets boxes				
37.3.1	50mm Round box				
37.3.1.1	Supply and delivery	No	50		
37.3.1.2	Installation	No	50		
	motaliation	140	50		
37.3.2	100 x 100 x 50 mm				
37.3.2.1	Supply and delivery	No	40		
37.3.2.2	Installation	No	40		
37,3	Fingerprint reader				
37.3.1.1	Fingerprint reader Supply and delivery		25		
37.3.1.2	Installation		25		
07.0.1.2	motaliation		20		
37,4	Magnetic Lock				
37.4.1	Supply and delivery		22		
37.4.2	Installation		22		
37,5	Access Control Management system				
37.5.1	Supply and delivery		2		
37.5.2	Installation		2		
37,6	Access Gates				
37.6.1	Supply and delivery		3		
37.6.2	Installation		3		
TOTAL	FOR BILL CARRIED FORWARD TO TENDER SUMMA	RY			

MOEDWIL COMBINED SCHOOL SUBJECT: BILL OF QUANTITIES

## BILL No.38 - VOICE/DATA

Supply, delivery and installation of PVC conduit, surface mounted in ceiling voids and fixed to walls or cast-in or built into walls, including all fixing materials, bends, terminations, draw boxes, etc.   32mm diameter   Supply and delivery   Installation   Supply and delivery   Meter   580   38.1.2   Supply and delivery   Installation   Meter   950   38.1.2.2   Installation   Meter   950   38.1.2.2   Installation   Meter   Meter   950   38.2.2   Supply, installation and delivery of 300mm wire basket in ceiling void c/w offsets, bends etc.   Supply and delivery   Meter   440   Met			UNIT	QTY	TENDER	R VALUE
38.1 Supply, delivery and installation of PVC conduit, surface mounted in ceiling voids and fixed to walls or cast:n or built into walls, including all fixing materials, bends. terminations, draw boxes, etc.  38.1.1.1 Installation  38.1.2 Supply and delivery  18.1.2.1 Supply and delivery  18.1.2.1 Supply and delivery  18.1.2.1 Supply and delivery  18.1.2.1 Supply and delivery  18.1.2.1 Supply and delivery  18.1.3 Supply, installation and delivery of 300mm wire basket in ceiling void c/w offsets, bends etc.  38.2.1 Supply and delivery  18.3.1.1 Supply and delivery installation of Conduit outlets boxes  50mm Round box  50mm Round box  50mm Round box  50mm Round delivery  100 x 100 x 50 mm  500 x 100 x 100 x 50 mm  500 x 100 x 100 x 50 mm  500 x 100 x	ITEM	DESCRIPTION	Civil	411		
mounted in ceiling voids and fixed to walls or cast-in or built into walls, including all fixing materials, bends, terminations, draw boxes, etc.  38.1.1 38.1.1.2 38.1.2 38.1.2 38.1.2 38.2.1 38.2.1 38.2.1 38.2.1 38.3.3 38.3.1		2200				
mounted in ceiling voids and fixed to walls or cast-in or built into walls, including all fixing materials, bends, irrimations, draw boxes, etc.  38.1.1 38.1.1.1 38.1.1.2 38.1.1.2 38.1.2.1 38.1.2.1 38.1.2.1 38.2.2.1 38.2.1.3 38.3.3 38.3.3 38.3.3 38.3.1.1 38.3.1.1 38.3.1.2 38.3.1.2 38.3.1.2 38.3.2.1 38.3.3.2.1 38.3.3.2.1 38.3.3.2.1 38.3.3.2.1 38.3.3.2.1 38.3.3.2.1 38.3.3.2.1 38.3.3.2.1 38.3.3.2.1 38.3.3.2.1 38.3.3.2.1 38.3.3.2.1 38.3.3.2.1 38.3.3.2.1 38.3.3.2.1 38.3.3.3.2.1 38.3.3.3.3.3.3.2.1 38.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.	38,1	Supply, delivery and installation of PVC conduit, surface				
terminations, draw boxes, etc.   32mm diameter   580   580   38.1.1   38.1.1.2   38.1.2   28.1.2.1   38.1.2.2   38.2.2   38.2.1   Supply and delivery   Installation   Meter   950						
38.1.1   38.1.1.2   Supply and delivery   Installation   Meter   580   38.1.2.1   Supply and delivery   Installation   Meter   950   Meter						
38.1.1.1 38.1.1.2 38.1.2.1 38.1.2.2 Installation 38.1.2.2 Supply and delivery Installation 38.1.2.2 Installation 38.2.2 Supply, installation and delivery of 300mm wire basket in ceiling void c/w offsets, bends etc. 38.2.1 Supply and delivery Installation 38.3 Supply, delivery and installation of Conduit outlets boxes 38.3.1 Supply and delivery Installation 38.3.1.2 Supply and delivery Installation 38.3.2.1 Supply and delivery Installation 38.3.2.1 Supply and delivery Installation 100 x 100 x 50 mm 38.3.2.2 Installation 100 x 100 x 50 mm 38.3.2.2 Installation 38.4 Supply and installation of power skirting mounted voice / data accessories Blank cover plate suitable for RJ 11 telephone outlet Blank cover plate suitable for RJ 45 data outlet  Supply and installation of full PA system by specialist  Set 1  Supply and installation of full PA system by specialist Set 1						
Installation   Supply, installation   Meter   S80	38.1.1	32mm diameter				
38.1.2   25mm diameter   Supply and delivery   Installation   Meter   950    38.2   Supply, installation and delivery of 300mm wire basket   in ceilling void c/w offsets, bends etc.   Supply and delivery   Installation   Meter   440   Meter   440    38.3   Supply, delivery and installation of Conduit outlets boxes   Supply and delivery   Installation   No   165	38.1.1.1	Supply and delivery	Meter	580		
38.1.2.1 Supply and delivery Installation  Supply installation and delivery of 300mm wire basket in ceiling void c/w offsets, bends etc.  Supply and delivery Installation  Supply delivery and installation of Conduit outlets boxes  Supply and delivery Installation  Supply and delivery Installation  Supply and delivery Installation  Supply and delivery Installation  Supply and delivery Installation  Supply and delivery Installation  Supply and delivery Installation  Supply and delivery Installation  Supply and delivery Installation  Supply and delivery Installation  Supply and installation of power skirting mounted voice / data accessories  Supply and installation of power skirting mounted voice / data accessories  Blank cover plate suitable for RJ 11 telephone outlet  Blank cover plate suitable for RJ 45 data outlet  Supply and installation of full PA system by specialist  Set 1	38.1.1.2	Installation	Meter	580		
Installation  Supply, installation and delivery of 300mm wire basket in ceiling void c/w offsets, bends etc.  Supply and delivery Installation  Supply, delivery and installation of Conduit outlets boxes  50mm Round box  Supply and delivery No 165  38.3.1.2 Installation  Supply and delivery No 165  38.3.1.2 Installation  Supply and delivery No 165  38.3.2.1 No 232  Supply and delivery No 232  Supply and delivery No 232  Supply and installation of power skirting mounted voice / data accessories  Blank cover plate suitable for RJ 11 telephone outlet Blank cover plate suitable for RJ 45 data outlet  Supply and installation of full PA system by specialist  Supply and installation of full PA system by specialist	38.1.2	25mm diameter				
38.2 Supply, installation and delivery of 300mm wire basket in ceiling void c/w offsets, bends etc.  Supply and delivery Installation  Supply, delivery and installation of Conduit outlets boxes  50mm Round box Supply and delivery Installation  Supply and delivery Installation  No  165  38.3.2 100 x 100 x 50 mm Supply and delivery Installation  No  232  38.3.2 38.3.2 1 Supply and delivery Installation  No  232  38.4 Supply and installation of power skirting mounted voice / data accessories Blank cover plate suitable for RJ 11 telephone outlet Blank cover plate suitable for RJ 45 data outlet  Supply and installation of full PA system by specialist  Set  1	38.1.2.1	Supply and delivery	Meter	950		
in ceiling void c/w offsets, bends etc.  Supply and delivery Installation  Supply, delivery and installation of Conduit outlets boxes  Supply and delivery and installation of Conduit outlets boxes  Supply and delivery Installation  Supply and delivery Installation  Supply and delivery Installation  Supply and delivery Installation  Supply and delivery Installation  Supply and delivery Installation  Supply and delivery Installation  Supply and installation of power skirting mounted voice / data accessories  Supply and installation of power skirting mounted voice / data accessories  Blank cover plate suitable for RJ 11 telephone outlet  Blank cover plate suitable for RJ 45 data outlet  Supply and installation of full PA system by specialist  Set 1	38.1.2.2	Installation	Meter	950		
in ceiling void c/w offsets, bends etc.  Supply and delivery Installation  Supply, delivery and installation of Conduit outlets boxes  Supply and delivery and installation of Conduit outlets boxes  Supply and delivery Installation  Supply and delivery Installation  Supply and delivery Installation  Supply and delivery Installation  Supply and delivery Installation  Supply and delivery Installation  Supply and delivery Installation  Supply and installation of power skirting mounted voice / data accessories  Supply and installation of power skirting mounted voice / data accessories  Blank cover plate suitable for RJ 11 telephone outlet  Blank cover plate suitable for RJ 45 data outlet  Supply and installation of full PA system by specialist  Set 1	38.2	Supply installation and delivery of 200mm wire healtet				
38.2.1 Supply and delivery Installation  Supply delivery and installation of Conduit outlets boxes  50mm Round box Supply and delivery Installation  Supply and delivery Installation  100 x 100 x 50 mm Supply and delivery Installation  Supply and delivery Installation  Supply and delivery Installation  Supply and installation of power skirting mounted voice / data accessories  Blank cover plate suitable for RJ 11 telephone outlet Blank cover plate suitable for RJ 45 data outlet  Supply and installation of full PA system by specialist  Set  1	30,2					
Installation  Supply, delivery and installation of Conduit outlets boxes  50mm Round box Supply and delivery Installation  50mm Round box Supply and delivery Installation  100 x 100 x 50 mm Supply and delivery Installation  100 x 100 x 50 mm Supply and delivery Installation  5upply and installation of power skirting mounted voice / data accessories  Blank cover plate suitable for RJ 11 telephone outlet Blank cover plate suitable for RJ 45 data outlet  Supply and installation of full PA system by specialist  Set  1	38 2 1	-	Motor	440		
38.3.1 38.3.1.1 38.3.1.2 38.3.2.1 38.3.2.1 38.3.2.1 38.3.2.2 38.3.2.2 38.3.2.2 38.3.2.2 38.4.4 Supply and delivery Installation Supply and delivery Installation Supply and delivery Installation Supply and installation of power skirting mounted voice / data accessories Blank cover plate suitable for RJ 11 telephone outlet Blank cover plate suitable for RJ 45 data outlet  Supply and installation of full PA system by specialist  Set 1						
50mm Round box Supply and delivery Installation 100 x 100 x 50 mm Supply and delivery Installation 100 x 100 x 50 mm Supply and delivery Installation 100 x 100 x 50 mm Supply and delivery Installation 100 x 100 x 50 mm Supply and installation of power skirting mounted voice / data accessories 38.4.1 38.4.2 38.4.1 38.4.2 Blank cover plate suitable for RJ 11 telephone outlet Blank cover plate suitable for RJ 45 data outlet  No 40  Supply and installation of full PA system by specialist  Set 1	30.2.2	Installation	weter	440		
38.3.1.1 Supply and delivery Installation 100 x 100 x 50 mm 38.3.2.1 Supply and delivery Installation 100 x 100 x 50 mm 38.3.2.1 Supply and delivery Installation 100 x 100 x 50 mm  Supply and installation of power skirting mounted voice / data accessories  Blank cover plate suitable for RJ 11 telephone outlet Blank cover plate suitable for RJ 45 data outlet  Supply and installation of full PA system by specialist  Set 1	38,3	Supply, delivery and installation of Conduit outlets boxes				
38.3.1.1 Supply and delivery Installation 100 x 100 x 50 mm 38.3.2.1 Supply and delivery Installation 100 x 100 x 50 mm 38.3.2.1 Supply and delivery Installation 100 x 100 x 50 mm  Supply and installation of power skirting mounted voice / data accessories  Blank cover plate suitable for RJ 11 telephone outlet Blank cover plate suitable for RJ 45 data outlet  Supply and installation of full PA system by specialist  Set 1	38.3.1	50mm Round hox				
38.3.1.2 Installation 38.3.2.1 Supply and delivery Installation 38.3.2.2 Installation 38.4.3 Supply and installation of power skirting mounted voice / data accessories Blank cover plate suitable for RJ 11 telephone outlet Blank cover plate suitable for RJ 45 data outlet  Supply and installation of full PA system by specialist  Set 1			No	165		
38.3.2 100 x 100 x 50 mm  Supply and delivery Installation  Supply and installation of power skirting mounted voice / data accessories  Blank cover plate suitable for RJ 11 telephone outlet Blank cover plate suitable for RJ 45 data outlet  Supply and installation of full PA system by specialist  Supply and installation of full PA system by specialist						
38.3.2.1 Supply and delivery Installation  Supply and installation of power skirting mounted voice / data accessories  Blank cover plate suitable for RJ 11 telephone outlet Blank cover plate suitable for RJ 45 data outlet  Supply and installation of full PA system by specialist  Set  1			140	100		
38.4.2 Supply and installation of power skirting mounted voice / data accessories 38.4.1 Blank cover plate suitable for RJ 11 telephone outlet Blank cover plate suitable for RJ 45 data outlet  38.5 Supply and installation of full PA system by specialist  Set 1			No	232		
38.4.1 Supply and installation of power skirting mounted voice / data accessories Blank cover plate suitable for RJ 11 telephone outlet Blank cover plate suitable for RJ 45 data outlet  Supply and installation of full PA system by specialist  Set 1						
data accessories Blank cover plate suitable for RJ 11 telephone outlet Blank cover plate suitable for RJ 45 data outlet  No No No Supply and installation of full PA system by specialist  Set  1						
Blank cover plate suitable for RJ 11 telephone outlet Blank cover plate suitable for RJ 45 data outlet  Supply and installation of full PA system by specialist  Set  1	38,4					
Blank cover plate suitable for RJ 45 data outlet  No 40  Supply and installation of full PA system by specialist  Set 1						
Supply and installation of full PA system by specialist  Set  1						
Supply and installation of full PA system by specialist  Set  1	38.4.2	Blank cover plate suitable for RJ 45 data outlet	No	40		
Supply and installation of full PA system by specialist  Set  1	38,5					
TOTAL FOR BILL CARRIED FORWARD TO TENDER SUMMARY	,	Supply and installation of full PA system by specialist	Set	1		
TOTAL FOR BILL CARRIED FORWARD TO TENDER SUMMARY						
TOTAL FOR BILL CARRIED FORWARD TO TENDER SUMMARY						
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	TOTAL	FOR BILL CARRIED FORWARD TO TENDER SUMMA	RY			

MOEDWIL COMBINED SCHOOL SUBJECT: BILL OF QUANTITIES

BILL No.39 - STANDBY POWER & UPS

		UNIT	QTY	Т	ENDER VALUE
ITEM	DESCRIPTION				
39,1	Supply, Delivery, Installation and Commissioning of 550kVA Standby generator including standby 1000litre diesel fuel tank and sound attenuated canopy. Installation must include Automatic Changeover Panel as indicated in the SLD 1011-E-101	Sum	2		
39,2	Changeover Panel as Indicated in the SLD 1011-E- 101  Supply and install UPS 20kVA	Sum	1		
	L FOR BILL CARRIED FROWARD TO TENDER SUMMA	NPV			

MOEDWIL COMBINED SCHOOL
SUBJECT: BILL OF QUANTITIES

## SUMMARY OF SCHEDULE OF QUANTITIES

DESCRIPTION	2023 Estimate
PRELIMINARIES	
MEDIUM VOLTAGE DISTRIBUTION	
LOW VOLTAGE DISTRIBUTION	
EXTERNAL LIGHTING	
BLOCK 6 - TYPE 1 HOSTEL	
BLOCK 7 - TYPE 2 HOSTEL	
BLOCK 8 - TYPE 2 HOSTEL	
BLOCK 9 - TV ROOM	
BLOCK 10 - TYPE 1 HOSTEL	
BLOCK 11 - TYPE 1 HOSTEL	
BLOCK 12 - TYPE 1 HOSTEL	
BLOCK 14 - HOSTEL MASTER	
BLOCK 15 - HOSTEL ADMINISTRATION	
BLOCK 16 - STAFF HOUSE	
BLOCK 17 - STAFF HOUSE	
BLOCK 18 - STAFF HOUSE	
BLOCK 19 - STAFF HOUSE	
BLOCK 20 - TV ROOM	
BLOCK 21 - TYPE 1 HOSTEL	
BLOCK 22 - TYPE 1 HOSTEL	
BLOCK 23 - HOSTEL MASTER	
BLOCK 24 - GUARD HOUSE	
BLOCK 25 - TYPE 1 HOSTEL	
BLOCK 26 - TYPE 1 HOSTEL	
BLOCK 33 - GUARD HOUSE	
BLOCK M - GUARD HOUSE	
SECURITY	
	PRELIMINARIES  MEDIUM VOLTAGE DISTRIBUTION  LOW VOLTAGE DISTRIBUTION  EXTERNAL LIGHTING  BLOCK 6 - TYPE 1 HOSTEL  BLOCK 7 - TYPE 2 HOSTEL  BLOCK 8 - TYPE 2 HOSTEL  BLOCK 9 - TV ROOM  BLOCK 10 - TYPE 1 HOSTEL  BLOCK 11 - TYPE 1 HOSTEL  BLOCK 12 - TYPE 1 HOSTEL  BLOCK 15 - HOSTEL ADMINISTRATION  BLOCK 16 - STAFF HOUSE  BLOCK 17 - STAFF HOUSE  BLOCK 19 - STAFF HOUSE  BLOCK 20 - TV ROOM  BLOCK 21 - TYPE 1 HOSTEL  BLOCK 22 - TYPE 1 HOSTEL  BLOCK 23 - HOSTEL MASTER  BLOCK 25 - TYPE 1 HOSTEL  BLOCK 26 - TYPE 1 HOSTEL  BLOCK 27 - TYPE 1 HOSTEL  BLOCK 28 - GUARD HOUSE  BLOCK 29 - TYPE 1 HOSTEL  BLOCK 29 - TYPE 1 HOSTEL  BLOCK 21 - TYPE 1 HOSTEL  BLOCK 23 - GUARD HOUSE  BLOCK 26 - TYPE 1 HOSTEL  BLOCK 26 - TYPE 1 HOSTEL  BLOCK 31 - GUARD HOUSE  BLOCK 33 - GUARD HOUSE

38	VOICE/DATA			
39	STANDBY POWER	R		
40	BLOCK 13 - REFU	SE BIN		
41	BLOCK 34 - REFU	SE BIN		
42	BLOCK 36 - PUMF	HOUSE		
43	ASBESTOS STRU	CTURES DEMOL	ITION	
39	Sub Total 1			
40	CONTINGENCY @	<b>0</b> 10%		
41	Sub Total 2			
42	Add 15% VAT			
43	TOTAL FIXED AN	D FIRM PRICE		
43	TOTAL FIXED AN	D FIRM PRICE		
	TOTAL FIXED AN	D FIRM PRICE		
	NDER	D FIRM PRICE		
TEN	NDER	D FIRM PRICE		
TEN	NDER ME	D FIRM PRICE  : :		
TEN	NDER ME	: :		
TEN NAI ADI	NDER ME	;		
TEN NAI ADI	NDER ME DRESS	;		
TEN NAI ADI	NDER ME DRESS	;		

# PART C:

Date: Rev:

#### Preliminaries to the Bill

- 1 This Bill of Quantities forms part of the contract documents and is to be read in conjunction therewith.
- 2 All works billed here shall include for the full scope of service specified including but not limited to supply,
- 3 Quantities indicated here are to be verified by the contractor against the project drawings. All discrepancies
- 4 No variation in rates shall be due based on variation in quantities, rate of exchange or escalation.
- 5 Errors and omissions of equipment or material required to execute the project solution specified or indicated
- 6 All works required to execute the scope of works in accordance with the project program and quality requirements are deemed included in the rates and totals provided below.
- 7 Rates provided shall include for fixing, hangers, fittings, transformations, sealant and all other items required
- 8 The bill of quantities shall not be used as the basis for material order.

TOTAL Ps & Gs CARRIED FORWARD TO SUMMARY

9 The values here shall be entered in South African Rands and exclusive of VAT.

#### **BILL 1: PRELIMINARY & GENERALS**

		Unit	Quantity	Rate	Amount
1,1	Site Establishment	lot	1	R	R
1,2	Workshop Drawings	No	3	R	R
1.3	Builder's Works The Contractor shall make provision for sleeves, building swraps and all other supporting equipment to complete the installation.	lot	1	-	R
1.4	OPERATING AND MAINTENANCE MANUALS The Contractor shall make provision for 4 x copies of O & M Manuals in accordance with the detail in the Standard specification.	No	3	R	R
1.5	TRAINING OF CLIENTS STAFF The Contractor shall make provision for 1 full day's training of the Clients Staff, on the operation of the installation.	1	5	R	R
1.6	AS-BUILT LAYOUT DRAWINGS The Contractor shall make provision for a detailed set of As Fitted Layout drawings of the entire installation, as the project progresses.	No	3	R	R
1.7	COMMISIONING AND TESTING The Contractor shall make provision to commission and pressure test the installation during construction	lot	1	R	R
1.8	MAINTENANCE AND GUARANTEE The Contractor shall make provision for 1 x Full years Maintenance and Guarantee of the entire installation. 11 x Standard Maintenance visits and 1 x Major service is required throughout the 12 months.	lot	12	R	R
1.9	Contingency Amount: Included for the future unforeseen future changes.	lot	1	-	

- This Bill of Quantities forms part of the contract documents and is to be read in conjunction therewith.
- 2 All works billed here shall include for the full scope of service specified including but not limited to supply, delivery, installation, commissioning,
- 3 Quantities indicated here are to be verified by the contractor against the project drawings. All discrepancies shall be brought to the attention of the
- 4 No variation in rates shall be due based on variation in quantities, rate of exchange or escalation.
- 5 Errors and omissions of equipment or material required to execute the project solution specified or indicated on the drawings shall be brought to the attention
- 6 All works required to execute the scope of works in accordance with the project program and quality requirements are deemed included in the rates and totals
- 7 Rates provided shall include for fixing, hangers, fittings, transformations, sealant and all other items required to deliver a functional system in accordance with
- ${\small 8\qquad \ \ \, } \ \ \, \text{The bill of quantities shall not be used as the basis for material order.}$
- 9 The values here shall be entered in South African Rands and exclusive of VAT.

	ding delivery and installation, testing and commissioning with 12 months maintenance o			Equipment as per	
TEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
1	BLOCK 6 - TYPE 1A HOSTEL				
1.1	4 Plate Stove with solid plates	No	2	R	R
	•				
1,2	350l fridge with bottom freezer	No	2	R	R
,	ossi mage min sociom necesi				
TAL DIC	OCK 6 CARRIED FORWARD TO SUMMARY				R

- This Bill of Quantities forms part of the contract documents and is to be read in conjunction therewith.
- 2 All works billed here shall include for the full scope of service specified including but not limited to supply, delivery, installation, commissioning,
- 3 Quantities indicated here are to be verified by the contractor against the project drawings. All discrepancies shall be brought to the attention of the
- 4 No variation in rates shall be due based on variation in quantities, rate of exchange or escalation.
- 5 Errors and omissions of equipment or material required to execute the project solution specified or indicated on the drawings shall be brought to the attention
- 6 All works required to execute the scope of works in accordance with the project program and quality requirements are deemed included in the rates and totals
- 7 Rates provided shall include for fixing, hangers, fittings, transformations, sealant and all other items required to deliver a functional system in accordance with
- 8 The bill of quantities shall not be used as the basis for material order.
- $9 \qquad \hbox{ The values here shall be entered in South African Rands and exclusive of VAT}.$

	The values here shall be entered in South African Rands and exclusive of VAT.				
	uding delivery and installation, testing and commissioning with 12 months maintenance of	tne tollowin	g Mechanical I	quipment as per	tne tender
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
1	BLOCK 7 - TYPE 2A HOSTEL				
1.1	4 Plate Stove with solid plates	No	1	R	R
	41 late Stove With Solid plates	110	-		
1.2	aral Cales - Ale harras Conserva	N		_	
1,2	350l fridge with bottom freezer	No	1	R	R
TOTAL RIC	OCK 7 CARRIED FORWARD TO SUMMARY				R
. J IAL DL	TOTAL TOTAL TO COMMENT				••

- This Bill of Quantities forms part of the contract documents and is to be read in conjunction therewith.
- 2 All works billed here shall include for the full scope of service specified including but not limited to supply, delivery, installation, commissioning,
- 3 Quantities indicated here are to be verified by the contractor against the project drawings. All discrepancies shall be brought to the attention of the
- 4 No variation in rates shall be due based on variation in quantities, rate of exchange or escalation.
- 5 Errors and omissions of equipment or material required to execute the project solution specified or indicated on the drawings shall be brought to the attention
- 6 All works required to execute the scope of works in accordance with the project program and quality requirements are deemed included in the rates and totals
- 7 Rates provided shall include for fixing, hangers, fittings, transformations, sealant and all other items required to deliver a functional system in accordance with
- 8 The bill of quantities shall not be used as the basis for material order.
- 9 The values here shall be entered in South African Rands and exclusive of VAT.

	The values here shall be entered in South African Rands and exclusive of VAT.				
	uding delivery and installation, testing and commissioning with 12 months maintenance of	tne tollowin	g Mechanical I	quipment as per	tne tender
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
1	BLOCK 8 - TYPE 2A HOSTEL				
1.1	4 Plate Stove with solid plates	No	1	R	R
	41 luce Store with some places	110	-		
4.2	aral Cales - 21: harras Conserva	N1 -	-	_	
1,2	350I fridge with bottom freezer	No	1	R	R
TOTAL RIC	OCK 8 CARRIED FORWARD TO SUMMARY				R
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- 8 The bill of quantities shall not be used as the basis for material order.
- 9 The values here shall be entered in South African Rands and exclusive of VAT.

	The values here shall be entered in South African Rands and exclusive of VAT.	Calca Callant	- N4-ab!!	Faultamas: t	. Aba Aanda :
ITEM NO	uding delivery and installation, testing and commissioning with 12 months maintenance o DESCRIPTION	the followin	g Mechanical I	RATE	AMOUNT
II EIVI NU	DESCRIPTION	UNIT	QUANTITY	RAIE	AWOUNT
	DI OCK 40. TVDF 44 HOCTEL				
1	BLOCK 10 - TYPE 1A HOSTEL				
1.1	4 Plate Stove with solid plates	No	2	R	R
1,2	350l fridge with bottom freezer	No	2	R	R
				İ	
	DOW 40 CARRIED FORWARD TO COMMAND				
IOTAL BLO	OCK 10 CARRIED FORWARD TO SUMMARY				R

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	iding delivery and installation, testing and commissioning with 12 months maintenance o		g Mechanical I		the tender
TEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
1	BLOCK 11 - TYPE 1A HOSTEL				
1.1	4 Plate Stove with solid plates	No	2	R	R
	<u> </u>				
1,2	350I fridge with bottom freezer	No	2	R	R
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- 8
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	iding delivery and installation, testing and commissioning with 12 months maintenance o		g Mechanical I		the tender
TEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
1	BLOCK 12 - TYPE 1A HOSTEL				
1.1	4 Plate Stove with solid plates	No	2	R	R
	<u> </u>				
1,2	350I fridge with bottom freezer	No	2	R	R
-					
+					

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- 8
- The bill of quantities shall not be used as the basis for material order.
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uppiv incli	ding delivery and installation, together and assumination in the 42 months and 1.	the fall	a Machaele	Equipment :	the to-de-
ITEM NO	Iding delivery and installation, testing and commissioning with 12 months maintenance of DESCRIPTION	the followin	g Mechanical   QUANTITY	quipment as per	the tender  AMOUNT
1210	220011111011	0	40/11111	10112	7
1	BLOCK 14 - HOSTEL MASTER				
1.1	4 Plate Stove with solid plates	No	1	R	R
	·				
1,2	350I fridge with bottom freezer	No	1	R	R
1,3	6kg front loader washing machine with stainles steel drum.	No	1	R	R
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9	The values here shall be entered in South African Rands and exclusive of VAT.	Caba Caller	- Mask!!	Faculta as a section	. Ab a Aamala ::
Supply inclu	ding delivery and installation, testing and commissioning with 12 months maintenance of DESCRIPTION	the followin	g Mechanical I QUANTITY	Equipment as per RATE	the tender  AMOUNT
Livi NO	DEGORIFTION	OHII	QUANTITY	MATE	AMOUNT
1	BLOCK 16 - STAFF HOUSE				
-	DECCK 10 - STATE HOUSE				
1.1	4 Plate Stove with solid plates	No	2	R	R
1.1	4 Flate Stove with solid plates	INO		N.	IN .
1,2	350I fridge with bottom freezer	No	2	R	R
1,2	3301 Mage with bottom neezer	INO		N.	IN .
1,3	6kg front loader washing machine with stainles steel drum.	No	2	R	R
1,3	okg from toader washing machine with stanles steer druin.	INO		N.	IN .
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OTAL BLO	CK 16 CARRIED FORWARD TO SUMMARY				R

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- 8
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	The values here shall be entered in South African Rands and exclusive of VAT.	Calco College	- 9.0 1 1 1		Alex Accorden
ITEM NO	Iding delivery and installation, testing and commissioning with 12 months maintenance o DESCRIPTION	the followin	QUANTITY	Equipment as per RATE	the tender  AMOUNT
I LIII IVO	DESCRIPTION	Oltil	QUARTITI	IGHT	AMOORT
1	BLOCK 17 - STAFF HOUSE				
-					
1.1	4 Plate Stove with solid plates	No	2	R	R
	4 Flate Stove With John plates	110	-		
1,2	350l fridge with bottom freezer	No	2	R	R
1,2	3301 Mage with bottom meezer	NO		N.	N .
1,3	6kg front loader washing machine with stainles steel drum.	No	2	R	R
1,3	okg from toduer washing machine with stainles steel druin.	INO		N.	N .
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1 BLO 1.1 4 Pla 1,2 350	DESCRIPTION  OCK 18 - STAFF HOUSE  Plate Stove with solid plates  Of fridge with bottom freezer  g front loader washing machine with stainles steel drum.	No No No	QUANTITY  2  2  2	RATE  R  R  R	R R R
1 BLO 1.1 4 Pla 1,2 350	OCK 18 - STAFF HOUSE  Plate Stove with solid plates  Ol fridge with bottom freezer	No No	2	R R	R
1.1 4 Pla 1,2 350	Plate Stove with solid plates OI fridge with bottom freezer	No	2	R	R
1.1 4 Pla 1,2 350	Plate Stove with solid plates OI fridge with bottom freezer	No	2	R	R
1,2 350	OI fridge with bottom freezer	No	2	R	R
1,2 350	OI fridge with bottom freezer	No	2	R	R
1,3 6kg	g front loader washing machine with stainles steel drum.	No		R	R
1,3 UNG	Tront toader washing machine with stallnes steer druin.				
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puly including delivery and insulation, testing and commissioning with 12 months maintenance of the following Mechanical Equipment 20 per the tender (1988) in the commissioning with 12 months and 1988		The values here shall be entered in South African Rands and exclusive of VAT.				
1.1 ADCK 19 - STAFF HOUSE  1.1 A Plate Stove with solid plates  1.2 350 I fridge with bottom freezer  1.3 Skg front loader washing machine with stainles steel drum.  No 2 R R  1.3 Skg front loader washing machine with stainles steel drum.  No 2 R R  1.4 R  1.5 R  1.6 R  1.7 R  1.8 R  1.9 R  1.9 R  1.9 R  1.9 R  1.0 R  1.0 R  1.0 R  1.0 R  1.1 R  1.1 R  1.2 R  1.3 R  1.4 R  1.5 R  1.5 R  1.5 R  1.6 R  1.7 R  1.7 R  1.8 R  1.9 R  1.9 R  1.0		uding delivery and installation, testing and commissioning with 12 months maintenance of				
No   2   R   R	II EM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
No   2   R   R						
1.2 350l fridge with bottom freezer	1	BLOCK 19 - STAFF HOUSE				
1.2 350l fridge with bottom freezer						
1.2 350l fridge with bottom freezer	1.1	4 Plate Stove with solid plates	No	2	R	R
1,3 6kg front loader washing machine with stainles steel drum.  No 2 R R  R  R  R  R  R  R  R  R  R  R  R  R						
1,3 6kg front loader washing machine with stainles steel drum.  No 2 R R  R  R  R  R  R  R  R  R  R  R  R  R	1.2	2501 fridge with bottom freezer	No	2	D	D
	1,2	3501 fridge with bottom freezer	NO	2	K	ĸ
OTAL BLOCK 19 CARRIED FORWARD TO SUMMARY  R	1,3	6kg front loader washing machine with stainles steel drum.	No	2	R	R
OTAL BLOCK 19 CARRIED FORWARD TO SUMMARY  R						
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9 Supply incl	The values here shall be entered in South African Rands and exclusive of VAT. uding delivery and installation, testing and commissioning with 12 months maintenance o	f the followin	ng Mechanical	Equipment as pe	r the tender
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
1	BLOCK 21 - TYPE 1B HOSTEL				
1.1	4 Plate Stove with solid plates	No	2	R	R
1,2	350I fridge with bottom freezer	No	2	R	R
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9 Supply incl	The values here shall be entered in South African Rands and exclusive of VAT.  uding delivery and installation, testing and commissioning with 12 months maintenance of	f the followin	ng Mechanical	Equipment as pe	r the tender
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
1	BLOCK 22 - TYPE 1B HOSTEL				
1.1	4 Plate Stove with solid plates	No	2	R	R
1,2	350l fridge with bottom freezer	No	2	R	R
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TOTAL BLO	OCK 22 CARRIED FORWARD TO SUMMARY				R

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	The values here shall be entered in South African Rands and exclusive of VAT.	Caba Celler	- N4 b ' - ' ' -	Facultains a retries	. Ab a Aamala ::
	iding delivery and installation, testing and commissioning with 12 months maintenance of		g Mechanical I		
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
1	BLOCK 23 - HOSTEL MOTHER				
1.1	4 Plate Stove with solid plates	No	1	R	R
1.2	2EOI fridge with bottom freezer	No	1	D	D
1,2	350I fridge with bottom freezer	No	1	R	R
1,3	6kg front loader washing machine with stainles steel drum.	No	1	R	R
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IOTAL BLO	CK 23 CARRIED FORWARD TO SUMMARY				R

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1 BLOCK 25 - To 1.1 4 Plate Stove	DESCRIPTION  VPE 1B HOSTEL  with solid plates  th bottom freezer	No	g Mechanical I QUANTITY	RATE  RATE	AMOUNT R
1 BLOCK 25 - TY 1.1 4 Plate Stove	YPE 1B HOSTEL with solid plates	No			
1.1 4 Plate Stove	with solid plates		2	R	R
1.1 4 Plate Stove	with solid plates		2	R	R
			2	R	R
			2	R	R
1,2 350l fridge wi	th bottom freezer	No			
1,2 350l fridge wi	th bottom freezer	Nο			
			2	R	R
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9 Supply incl	The values here shall be entered in South African Rands and exclusive of VAT. uding delivery and installation, testing and commissioning with 12 months maintenance of	f the followin	ng Mechanical	Equipment as pe	r the tender
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
1	BLOCK 26 - TYPE 1B HOSTEL				
1.1	4 Plate Stove with solid plates	No	2	R	R
1,2	350I fridge with bottom freezer	No	2	R	R
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	MECHANICAL EQUIPMENT TENDER BOQ	
Bill No.	Description	SUMMARY AMOUNT
1	Preliminary and General items	R
2	BLOCK 6	R
3	BLOCK 7	R
4	DI 00V 40	
4	BLOCK 10	R
5	BLOCK 11	R
6	BLOCK 12	R
7	BLOCK 14	R
8	BLOCK 16	R
9	BLOCK 17	R
10		
10	BLOCK 18	R
11	BLOCK 19	R
	DEGEN 13	
12	BLOCK 21	R
13	BLOCK 22	R
14	BLOCK 23	R
15	BLOCK 25	R
16	BLOCK 26	R

		1
TOTAL ME	CHANICAL EQUIPMENT EXCLUDING VAT	R

## **HVAC SYSTEM BOQ**

### **Preliminaries to the Bill**

- 1 This Bill of Quantities forms part of the contract documents and is to be read in conjunction therewith.
- 2 All works billed here shall include for the full scope of service specified including but not limited to supply,
- 3 Quantities indicated here are to be verified by the contractor against the project drawings. All discrepancies
- 4 No variation in rates shall be due based on variation in quantities, rate of exchange or escalation.
- 5 Errors and omissions of equipment or material required to execute the project solution specified or indicated
- 6 All works required to execute the scope of works in accordance with the project program and quality requirements are deemed included in the rates and totals provided below.
- 7 Rates provided shall include for fixing, hangers, fittings, transformations, sealant and all other items required
- 8 The bill of quantities shall not be used as the basis for material order.
- 9 The values here shall be entered in South African Rands and exclusive of VAT.

# BILL 1: PRELIMINARY & GENERALS

		Unit	Quantity	Rate	Amount
1,1	Site Establishment	No	1	R	R
-/-					
1,2	Workshop Drawings	No	3	R	R
1.3	Builder's Works				
	The Contractor shall make provision for sleeves, building				
	swraps and all other supporting equipment to complete the			_	
	installation.	No	1	R	R
1 1	ODED ATING AND MAINTENIANCE MANULALS				
1.4	OPERATING AND MAINTENANCE MANUALS  The Contractor shall make provision for 3 x copies of O & M				
	Manuals in accordance with the detail in the Standard				
	specification.	No	3	R	R
			_		
1.5	TRAINING OF CLIENTS STAFF				
	The Contractor shall make provision for 1 full day's training of				
	the Clients Staff, on the operation of the installation.				
		1	5	R	R
1.6	AS-BUILT LAYOUT DRAWINGS				
	The Contractor shall make provision for a detailed set of As				
	Fitted Layout drawings of the entire installation, as the project	No	3	R	R
	progresses.	INU	3	N.	N .
1.7	COMMISIONING AND TESTING				
,	The Contractor shall make provision to commission and				
	pressure test the installation during construction	No	1	R	R
1.8	MAINTENANCE AND GUARANTEE				
	The Contractor shall make provision for 1 x Full years				
	Maintenance and Guarantee of the entire installation. 11 x				
	Standard Maintenance visits and 1 x Major service is required		42		
	throughout the 12 months.	No	12	R	R
1.9	Contingency Amount: Included for the future unforeseen				
1.5	future changes.	SUM	1	_	
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- 4 No variation in rates shall be due based on variation in quantities, rate of exchange or escalation.
- 5 Errors and omissions of equipment or material required to execute the project solution specified or indicated on the drawings shall be brought to the
- 6 All works required to execute the scope of works in accordance with the project program and quality requirements are deemed included in the rates and
- 7 Rates provided shall include for fixing, hangers, fittings, transformations, sealant and all other items required to deliver a functional system in accordance
- The bill of quantities shall not be used as the basis for material order.

9	The values here shall be entered in South African Rands and exclusive of VAT.					
upply incl	uding delivery and installation, testing and commissioning with 12 months maintenance of DESCRIPTION	the following	ngHVAC system  QUANTITY	ns as per the te	nder drawings and the AMOUNT	
I LIWI NO	Type 1A Boys Hostel - Block 6	ONIT	QUANTITI	KAIL	AMOUNT	
1,0	Wall Mounted Indoor Infrared Heater					
	Supply, delivery and installation of an Eco Heat 1500W Wall Mounted Indoor Infrared					
	Heater (Model 1C750W2) or approved equivalent.					
1,1	Type 1A Boys' Hostel	No.	8	R	R	
	Type IA boys Hostel	140.			K	
2	Inline Duct Extraction Fans					
	Supply and install Inline extraction fan for toilets with ductwork and grills as per layout in					
	the drawings. The tender shall determine all the necessary fittings, bends, transformation					
	pieces, stop ends, balancing dampsers and constant volume air diffusers as per the					
	drawing layouts and specifications.					
2,1	Variety Type VID200 (FF02) is like dust for also passing infrared according to					
2,1	Xpelair Type XID200 (EF02) in-line duct fan c/w passive infrared sensor/controller ,	No	2	R	R	
	195 l/s, 180 Pa.	No.	2	ĸ	K .	
2,2	Type XID250 (EF03) in-line duct fan c/w passive infrared sensor/controller ,					
,	255 l/s, 180 Pa.	No	2	R	R	
3	Air terminals					
					_	
3,1	Ø150 metal extract disk valves.	No	11	R	R	
3,2	Ø200 metal extract disk valves.	No	14	R	R	
3,2	9200 Metal Catract disk valves.	110	14		K	
3,3	350 x 350 Weather louvre c/w w.m.s. and wall box with transformation piece					
	(EF01 and EF06).	No	2	R	R	
3,4	400 x 400 Weather louvre c/w w.m.s. and wall box with transformation piece					
	(EF01 and EF06).	No	2	R	R	
4	Ducting					
-	Ducting					
	Uninsulated metal Ducting					
4,1	100 x 200	m	3	R	R	
			_			
4,2	150 x 200	m	0,75	R	R	
4,3	150 x 250	m	2	R	R	
7,3	130 × 230		2		K	
4,4	200 x 200	m	1,35	R	R	
4,5	200 x 250	m	1,5	R	R	
					_	
4,6	250 x 200	m	0,9	R	R	
4,7	250 x 250	m	3	R	R	
4,7	230 x 230	111		N.	K	
4,8	300 x 200	m	1,35	R	R	
4,9	300 x 250	m	2,7	R	R	
5	Uninsulated Spigots					
5,1	Ø150	No	11	R	R	
J,⊥	0.770	INU	11	.,	n .	
5,2	Ø200	No	14	R	R	
6	Uninsulated Transformation Pieces (350mm)					
6,1	100 x 200 - 150 x 200	No	1	R	R	
			1			

6,2	100 x 200 - 200 x 200	No	1	R	R
6,3	150 x 200 - 200 x 200	No	1	R	R
0,3	150 X 200 - 200 X 200	No	1	K	K
6,4	150 x 250 - 200 x 250	No	2	R	R
6,5	200 x 200 - 250 x 200	No	1	R	R
				_	_
6,6	200 x 200 - 300 x 200	No	1	R	R
6,7	200 x 250 - 250 x 250	No	2	R	R
6,8	250 x 200 - 300 x 200	No	1	R	R
6,9	300 x 200 - 300 x 250	No	2	R	R
6	Uninsulated Flexible Ducting				
6,1	Ø150	m	11	R	R
6,2	Ø200	m	14	R	R
	Window Mounted Fans				
7,0	Supply install and commisson window mounted extraction fans as per the				
	drawings and specifications				
7,1	Xpelair Type GX6 window mounted fan with automatic shutter (EF01 ) c/w on/off infrared				
	switch, 50 l/s, 100 Pa, 6W. (Or similar approved.)	No	2	R	R
TOTAL BL	OCK 6 CARRIED FORWARD TO SUMMARY				R

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- 3 Quantities indicated here are to be verified by the contractor against the project drawings. All discrepancies shall be brought to the attention of the
- 4 No variation in rates shall be due based on variation in quantities, rate of exchange or escalation.
- 5 Errors and omissions of equipment or material required to execute the project solution specified or indicated on the drawings shall be brought to the attention
- 6 All works required to execute the scope of works in accordance with the project program and quality requirements are deemed included in the rates and totals
- Rates provided shall include for fixing, hangers, fittings, transformations, sealant and all other items required to deliver a functional system in accordance with

7 8	Rates provided shall include for fixing, hangers, fittings, transformations, sealant and all oth The bill of quantities shall not be used as the basis for material order.	ner items rec	juired to deliv	er a functional	system in accordance with
9	The values here shall be entered in South African Rands and exclusive of VAT.				
	uding delivery and installation, testing and commissioning with 12 months maintenance or	f the followi	ngHVAC syste	ms as per the to	ender drawings and the
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	Type 2A Boys Hostel - Block 7				
1,0	Wall Mounted Indoor Infrared Heater				
	Supply, delivery and installation of an Eco Heat 1500W Wall Mounted Indoor Infrared				
	Heater (Model 1C750W2) or approved equivalent.				
	T 44 D d Hdl	N1 -	13	ь	n
1,1	Type 1A Boys' Hostel	No.	15	R	R
2	Inline Duct Extraction Fans				
	Supply and install Inline extraction fan for toilets with ductwork and grilles as per layout in				
	the drawings. The tender shall determine all the necessary fittings, bends, transformation				
	pieces, stop ends, balancing dampsers and 2 off sound attenuators as per the drawing				
	layouts and specifications.				
2,1	Type XID250 (EF01) in-line duct fan c/w passive infrared sensor/controller,				
	300 l/s, 194 Pa, 157W	No	1	R	R
2,2	Ø500 (EF02) in-line duct fan c/w passive infrared sensor/controller ,				
	490 l/s, 210 Pa, 1440 rpm, 0,4kW, 1,1A, 3P	No	1	R	R
3	Air terminals				
3	Air terminais				
3,1	Ø200 metal extract disk valves.	No	14	R	R
3,1	p200 metal extract disk valves.	110			
3,3	350 x 350 Weather louvre c/w w.m.s. and wall box with transformation piece				
	(EFO1).	No	1	R	R
3,4	450 x 450 Weather louvre c/w w.m.s. and wall box with transformation piece				
	(EF02)	No	2	R	R
4	Ducting				
	Universidated another Direction				
	Uninsulated metal Ducting				
4,1	100 x 250	m	2,1	R	R
,-	200 x 250		2,1		
4,2	150 x 250	m	1	R	R
4,3	250 x 250	m	2	R	R
4,4	300 x 250	m	0,65	R	R
				_	
4,5	350 x 250	m	0,7	R	R
4,6	500 x 250	m	0,35	R	R
4,0	300 x 230	""	0,33	K	K
4,7	Ø200	m	17	R	R
•					
5	Uninsulated Spigots				
-					
5,1	Ø200	No	14	R	R
_					
6	Uninsulated Transformation Pieces (350mm)				-
6.1	100 v 250 150 v 250	N-	-	R	D
6,1	100 x 250 - 150 x 250	No	2	N	R
6,2	150 x 250 - 250 x 250	No	2	R	R
٥,٤	250 X 250 X 250	140			
6,3	250 x 250 - 300 x 250	No	1	R	R
-,-			<u> </u>		
6,4	250 x 250 - 350 x 250	No	1	R	R
6,5	350 x 250 - 500 x 250	No	1	R	R

6	Uninsulated Flexible Ducting				
	Omissiacea Hexibic Bacting				
6,1	Ø150	m	11	R	R
6,2	Ø200	m	14	R	R
	Window Mounted Fans				
	William William Carlo				
7,0	Supply install and commisson window mounted extraction fans as per the				
	drawings and specifications				
	Type DX100 window mounted fan with back draught shtter (EF03 c/w passive			_	_
	infrared sensor/controller, 60 l/s, 5 Pa, 6W.	No	2	R	R
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-					
-					
TOTAL B	LOCK 7 CARRIED FORWARD TO SUMMARY			<u> </u>	R

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- 3 Quantities indicated here are to be verified by the contractor against the project drawings. All discrepancies shall be brought to the attention of the
- 4 No variation in rates shall be due based on variation in quantities, rate of exchange or escalation.
- Errors and omissions of equipment or material required to execute the project solution specified or indicated on the drawings shall be brought to the 5
- 6 All works required to execute the scope of works in accordance with the project program and quality requirements are deemed included in the rates and
- 7 Rates provided shall include for fixing, hangers, fittings, transformations, sealant and all other items required to deliver a functional system in accordance
- The bill of quantities shall not be used as the basis for material order.

9	The values here shall be entered in South African Rands and exclusive of VAT.				
	uding delivery and installation, testing and commissioning with 12 months maintenance of				
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	Type 2A Boys Hostel - Block 8				
1.0	Moll Manustad Indoor Infrased Hootay				
1,0	Wall Mounted Indoor Infrared Heater Supply, delivery and installation of an Eco Heat 1500W Wall Mounted Indoor Infrared				
	Heater (Model 1C750W2) or approved equivalent.				
	incater (would 10/30W2) or approved equivalent.				
1,1	Type 1A Boys' Hostel	No.	13	R	R
	11/10-20-1-20-1-20-1-20-1-20-1-20-1-20-1		-		
2	Inline Duct Extraction Fans				
	Supply and install Inline extraction fan for toilets with ductwork and grilles as per layout in				
	the drawings. The tender shall determine all the necessary fittings, bends, transformation				
	pieces, stop ends, balancing dampsers and 2 off sound attenuators as per the drawing				
	layouts and specifications.				
2,1	Type XID250 (EF01) in-line duct fan c/w passive infrared sensor/controller,				
	300 l/s, 194 Pa, 157W	No	1	R	R
2,2	Ø500 (EF02) in-line duct fan c/w passive infrared sensor/controller ,				
	490 l/s, 210 Pa, 1440 rpm, 0,4kW, 1,1A, 3P	No	1	R	R
3	Air terminals				
3,1	Ø200 metal extract disk valves.	No	14	R	R
3,3	350 x 350 Weather louvre c/w w.m.s. and wall box with transformation piece				
	(EF01).	No	1	R	R
3,4	450 x 450 Weather louvre c/w w.m.s. and wall box with transformation piece		_	_	_
	(EF02)	No	2	R	R
	- ··				
4	Ducting				
	Huinaulated metal Dustina				
	Uninsulated metal Ducting				
4,1	100 x 250	m	2,1	R	R
4,1	100 x 230	- '''	2,1		IN .
4,2	150 x 250	m	1	R	R
4,3	250 x 250	m	2	R	R
,					
4,4	300 x 250	m	0,65	R	R
4,5	350 x 250	m	0,7	R	R
4,6	500 x 250	m	0,35	R	R
4,7	Ø200	m	17	R	R
<u> </u>					
5	Uninsulated Spigots				
F 1	Ø200	N/-	1.4	 	l p
5,1	Ø200	No	14	R	R
6	Uninsulated Transformation Pieces (350mm)				
<u> </u>	omination ration races (330mm)				
6,1	100 x 250 - 150 x 250	No	2	R	R
0,1	200 / 200 / 200	140		† · ·	
6,2	150 x 250 - 250 x 250	No	2	R	R
-,-				i i	
6,3	250 x 250 - 300 x 250	No	1	R	R
,-					
6,4	250 x 250 - 350 x 250	No	1	R	R
6,5	350 x 250 - 500 x 250	No	1	R	R
			<u> </u>		

6	Uninsulated Flexible Ducting				
6,1	Ø150	m	11	R	R
6,2	Ø200	m	14	R	R
	Window Mounted Fans				
7,0	Supply install and commisson window mounted extraction fans as per the drawings and specifications				
	Type DX100 window mounted fan with back draught shtter (EF03 c/w passive infrared sensor/controller, 60 l/s, 5 Pa, 6W.	No	2	R	R
TOTAL B	LOCK 8 CARRIED FORWARD TO SUMMARY				R

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- 3 Quantities indicated here are to be verified by the contractor against the project drawings. All discrepancies shall be brought to the attention of the responsible
  - No variation in rates shall be due based on variation in quantities, rate of exchange or escalation.
- 5 Errors and omissions of equipment or material required to execute the project solution specified or indicated on the drawings shall be brought to the attention
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- 8 The bill of quantities shall not be used as the basis for material order.
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	uding delivery and installation, testing and commissioning with 12 months maintenance of the				
TEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	TV Room Block 9			ļ	1
1,0	Wall Ventilation Fans				
	Supply, delivery, installation and commissoning of wall mounted industrial fan				
	heater c/w wall mounted controller. Tempadair model 597053 or approved				
	equivalent.				
1.1	2134/444/42 200 3/6 3/6 3/6 3/6 3/6				
1,1	3kW/14A/1P 300m³/h wall mounted adjustable industrial fan heater c/w variable				
	thermostatic controller, wiring between controller and fan and wall mounted isolator				
	isolator to suit in TV Room.	No	2	R	R
1,2	3kW/14A/1P 300m³/h wall mounted adjustable industrial fan heater c/w variable				
	thermostatic controller, wiring between controller and fan and wall mounted				
	isolator to suit in Entertainment Room.	No	2	R	R
	ISOIALOF LO SUIL III EFILEFLAIRITIENT ROOM.	No		ĸ	, n
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	LOCK 9 CARRIED FORWARD TO SUMMARY				R

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upply incl	uding delivery and installation, testing and commissioning with 12 months maintenance of DESCRIPTION	the following	ngHVAC system  QUANTITY	ns as per the te	nder drawings and the AMOUNT	
I LIVI NO	Type 1A Boys Hostel - Block 10	ONIT	QUANTITI	KAIL	AMOUNT	
1,0	Wall Mounted Indoor Infrared Heater					
	Supply, delivery and installation of an Eco Heat 1500W Wall Mounted Indoor Infrared					
	Heater (Model 1C750W2) or approved equivalent.					
1,1	Type 1A Boys' Hostel	No.	8	R	R	
	Type IA boys Hostel	140.				
2	Inline Duct Extraction Fans					
	Supply and install Inline extraction fan for toilets with ductwork and grills as per layout in					
	the drawings. The tender shall determine all the necessary fittings, bends, transformation					
	pieces, stop ends, balancing dampsers and constant volume air diffusers as per the					
	drawing layouts and specifications.					
2,1	Vaclair Tune VID200 (FF02) in line dust fan alw passive infrared conserventraller					
2,1	Xpelair Type XID200 (EF02) in-line duct fan c/w passive infrared sensor/controller ,	No	2	R	R	
	195 l/s, 180 Pa.	No.	2	ĸ	K .	
2,2	Type XID250 (EF03) in-line duct fan c/w passive infrared sensor/controller ,					
	255 l/s, 180 Pa.	No	2	R	R	
3	Air terminals					
	desc.			_	1_	
3,1	Ø150 metal extract disk valves.	No	11	R	R	
3,2	Ø200 metal extract disk valves.	No	14	R	R	
3,2	9200 Hictar Catract disk valves.	140	14		K	
3,3	350 x 350 Weather louvre c/w w.m.s. and wall box with transformation piece					
	(EF01 and EF06).	No	2	R	R	
3,4	400 x 400 Weather louvre c/w w.m.s. and wall box with transformation piece		_	_		
	(EF01 and EF06).	No	2	R	R	
4	Ducting					
	butting					
	Uninsulated metal Ducting					
4,1	100 x 200	m	3	R	R	
4.2	450, 200		0.75	-		
4,2	150 x 200	m	0,75	R	R	
4,3	150 x 250	m	2	R	R	
.,0	250 X 250					
4,4	200 x 200	m	1,35	R	R	
4,5	200 x 250	m	1,5	R	R	
1.0	250200		0.0		B	
4,6	250 x 200	m	0,9	R	R	
4,7	250 x 250	m	3	R	R	
			-			
4,8	300 x 200	m	1,35	R	R	
4,9	300 x 250	m	2,7	R	R	
-	Uninculated Chicate					
5	Uninsulated Spigots					
5,1	Ø150	No	11	R	R	
J,_	F	.,,		<u> </u>	1	
5,2	Ø200	No	14	R	R	
6	Uninsulated Transformation Pieces (350mm)					
					_	
6,1	100 x 200 - 150 x 200	No	1	R	R	
	1		l	ĺ	1	

				I	
6,2	100 x 200 - 200 x 200	No	1	R	R
				_	_
6,3	150 x 200 - 200 x 200	No	1	R	R
6,4	150 x 250 - 200 x 250	No	2	R	R
6,5	200 x 200 - 250 x 200	No	1	R	R
6,6	200 x 200 - 300 x 200	No	1	R	R
6,7	200 x 250 - 250 x 250	No	2	R	R
6,8	250 x 200 - 300 x 200	No	1	R	R
6,9	300 x 200 - 300 x 250	No	2	R	R
6	Uninsulated Flexible Ducting				
6,1	Ø150	m	11	R	R
6,2	Ø200	m	14	R	R
	Window Mounted Fans				
7,0	Supply install and commisson window mounted extraction fans as per the				
	drawings and specifications				
7,1	Xpelair Type GX6 window mounted fan with automatic shutter (EF01 ) c/w on/off infrared				
	switch, 50 l/s, 100 Pa, 6W. (Or similar approved.)	No	2	R	R
TOTAL BI	LOCK 10 CARRIED FORWARD TO SUMMARY				R

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- 6 All works required to execute the scope of works in accordance with the project program and quality requirements are deemed included in the rates and
- 7 Rates provided shall include for fixing, hangers, fittings, transformations, sealant and all other items required to deliver a functional system in accordance
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9	The values here shall be entered in South African Rands and exclusive of VAT.					
upply incl	uding delivery and installation, testing and commissioning with 12 months maintenance of DESCRIPTION	the following	ngHVAC system  QUANTITY	ns as per the te	nder drawings and the AMOUNT	
I LIVI NO	Type 1A Boys Hostel - Block 11	ONIT	QUANTITI	KAIL	AMOUNT	
1,0	Wall Mounted Indoor Infrared Heater					
	Supply, delivery and installation of an Eco Heat 1500W Wall Mounted Indoor Infrared					
	Heater (Model 1C750W2) or approved equivalent.					
1,1	Type 1A Boys' Hostel	No.	8	R	R	
	Type IA boys Hostel	140.				
2	Inline Duct Extraction Fans					
	Supply and install Inline extraction fan for toilets with ductwork and grills as per layout in					
	the drawings. The tender shall determine all the necessary fittings, bends, transformation					
	pieces, stop ends, balancing dampsers and constant volume air diffusers as per the					
	drawing layouts and specifications.					
2,1	Vaclair Tune VID200 (FF02) in line dust fan alw passive infrared conserventraller					
2,1	Xpelair Type XID200 (EF02) in-line duct fan c/w passive infrared sensor/controller ,	No	2	R	R	
	195 l/s, 180 Pa.	No.	2	ĸ	K .	
2,2	Type XID250 (EF03) in-line duct fan c/w passive infrared sensor/controller ,					
	255 l/s, 180 Pa.	No	2	R	R	
3	Air terminals					
	desc.			_	1_	
3,1	Ø150 metal extract disk valves.	No	11	R	R	
3,2	Ø200 metal extract disk valves.	No	14	R	R	
3,2	9200 Hictar Catract disk valves.	140	14		K	
3,3	350 x 350 Weather louvre c/w w.m.s. and wall box with transformation piece					
	(EF01 and EF06).	No	2	R	R	
3,4	400 x 400 Weather louvre c/w w.m.s. and wall box with transformation piece		_	_		
	(EF01 and EF06).	No	2	R	R	
4	Ducting					
	butting					
	Uninsulated metal Ducting					
4,1	100 x 200	m	3	R	R	
4.2	450, 200		0.75	-		
4,2	150 x 200	m	0,75	R	R	
4,3	150 x 250	m	2	R	R	
.,0	250 X 250					
4,4	200 x 200	m	1,35	R	R	
4,5	200 x 250	m	1,5	R	R	
4.6	250, 200		0.0	-		
4,6	250 x 200	m	0,9	R	R	
4,7	250 x 250	m	3	R	R	
٦,,	230 X 230					
4,8	300 x 200	m	1,35	R	R	
4,9	300 x 250	m	2,7	R	R	
	Uninculated Chicate					
5	Uninsulated Spigots					
5,1	Ø150	No	11	R	R	
J, 2	F	.,,		<u> </u>		
5,2	Ø200	No	14	R	R	
		·				
6	Uninsulated Transformation Pieces (350mm)					
					_	
6,1	100 x 200 - 150 x 200	No	1	R	R	
	1		l	ĺ	1	

6,2	100 x 200 - 200 x 200	No	1		
				R	R
6,3	150 x 200 - 200 x 200	No	1	D.	
6,4	150 x 250 - 200 x 250	No	2	R	R
				R	R
6,5	200 x 200 - 250 x 200	No	1	R	R
6,6	200 x 200 - 300 x 200	No	1	N .	N.
				R	R
6,7	200 x 250 - 250 x 250	No	2	R	R
6,8	250 x 200 - 300 x 200	No	1		
6.0	200, 200, 200, 200	NI.	2	R	R
6,9	300 x 200 - 300 x 250	No	2	R	R
6	Uninsulated Flexible Ducting				
6,1	Ø150	m	11		
0,1	9130	111	11	R	R
6,2	Ø200	m	14		
	Window Mounted Fans			R	R
7,0	Supply install and commisson window mounted extraction fans as per the				
	drawings and specifications				
7,1	Xpelair Type GX6 window mounted fan with automatic shutter (EF01 ) c/w on/off infrared				
	switch, 50 l/s, 100 Pa, 6W. (Or similar approved.)	No	2	R	R
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IOIALB	LOCK 11 CARRIED FORWARD TO SUMMARY				R

- 1 This Bill of Quantities forms part of the contract documents and is to be read in conjunction therewith.
- 2 All works billed here shall include for the full scope of service specified including but not limited to supply, delivery, installation, commissioning,
- 3 Quantities indicated here are to be verified by the contractor against the project drawings. All discrepancies shall be brought to the attention of the
- 4 No variation in rates shall be due based on variation in quantities, rate of exchange or escalation.
- 5 Errors and omissions of equipment or material required to execute the project solution specified or indicated on the drawings shall be brought to the
- 6 All works required to execute the scope of works in accordance with the project program and quality requirements are deemed included in the rates and
- 7 Rates provided shall include for fixing, hangers, fittings, transformations, sealant and all other items required to deliver a functional system in accordance
- The bill of quantities shall not be used as the basis for material order.

9	The values here shall be entered in South African Rands and exclusive of VAT.				
upply incl	uding delivery and installation, testing and commissioning with 12 months maintenance of DESCRIPTION	the following	ngHVAC systen  QUANTITY	ns as per the to	ender drawings and th AMOUNT
I LIWI NO	Type 1A Boys Hostel - Block 12	ONIT	QUANTITI	RAIL	AMOUNT
1,0	Wall Mounted Indoor Infrared Heater				
	Supply, delivery and installation of an Eco Heat 1500W Wall Mounted Indoor Infrared				
	Heater (Model 1C750W2) or approved equivalent.				
1,1	Type 1A Boys' Hostel	No.	8	R	R
1,1	Type IA boys Hostel	140.			**
2	Inline Duct Extraction Fans				
	Supply and install Inline extraction fan for toilets with ductwork and grills as per layout in				
	the drawings. The tender shall determine all the necessary fittings, bends, transformation				
	pieces, stop ends, balancing dampsers and constant volume air diffusers as per the				
	drawing layouts and specifications.				
2,1	Xpelair Type XID200 (EF02) in-line duct fan c/w passive infrared sensor/controller ,				
2,1	195 l/s, 180 Pa.	No.	2	R	R
	155 1/3, 100 Fd.	INO.	2	N	K
2,2	Type XID250 (EF03) in-line duct fan c/w passive infrared sensor/controller ,				
	255 l/s, 180 Pa.	No	2	R	R
3	Air terminals				
2.1	Ø4FO mastal automat dialala	Na	11	n .	
3,1	Ø150 metal extract disk valves.	No	11	R	R
3,2	Ø200 metal extract disk valves.	No	14	R	R
0,2	paso metal extract aist varies	110			•
3,3	350 x 350 Weather louvre c/w w.m.s. and wall box with transformation piece				
	(EF01 and EF06).	No	2	R	R
3,4	400 x 400 Weather louvre c/w w.m.s. and wall box with transformation piece	Ne	2	n .	B
	(EF01 and EF06).	No	2	R	R
4	Ducting				
	0				
	Uninsulated metal Ducting				
4,1	100 x 200	m	3	R	R
4,2	150 x 200	m	0,75	R	R
4,2	130 % 200	111	0,73	N	K
4,3	150 x 250	m	2	R	R
4,4	200 x 200	m	1,35	R	R
	200 250			_	
4,5	200 x 250	m	1,5	R	R
4,6	250 x 200	m	0,9	R	R
4,0	250 × 260		0,5		
4,7	250 x 250	m	3	R	R
4,8	300 x 200	m	1,35	R	R
	200 250				<u> </u>
4,9	300 x 250	m	2,7	R	R
5	Uninsulated Spigots				
5,1	Ø150	No	11	R	R
5,2	Ø200	No	14	R	R
	University of Transfermation Pierra (200mm)				
6	Uninsulated Transformation Pieces (350mm)				
6,1	100 x 200 - 150 x 200	No	1	R	R
<u>~,+</u>	200 A 200	110	-	1	1
	1				1

6,2	100 x 200 - 200 x 200	No	1		
				R	R
6,3	150 x 200 - 200 x 200	No	1	R	R
6,4	150 x 250 - 200 x 250	No	2		
6,5	200 x 200 - 250 x 200	No	1	R	R
				R	R
6,6	200 x 200 - 300 x 200	No	1	R	R
6,7	200 x 250 - 250 x 250	No	2	N	N.
6,8	250 x 200 - 300 x 200	No	1	R	R
0,8	250 X 200 - 500 X 200	INO	1	R	R
6,9	300 x 200 - 300 x 250	No	2	R	R
6	Uninsulated Flexible Ducting				
				_	_
6,1	Ø150	m	11	R	R
6,2	Ø200	m	14	R	R
	Window Mounted Fans				
7,0	Supply install and commisson window mounted extraction fans as per the drawings and specifications				
7,1	Xpelair Type GX6 window mounted fan with automatic shutter (EF01 ) c/w on/off infrared switch, 50 l/s, 100 Pa, 6W. (Or similar approved.)	No	2	R	R
	Switch, 30 1/5, 100 Fa, 0W. (Of Shifilal approved.)	INU	2	N.	N.
TOTAL BI	LOCK 12 CARRIED FORWARD TO SUMMARY				R

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- 2 All works billed here shall include for the full scope of service specified including but not limited to supply, delivery, installation, commissioning,
- 3 Quantities indicated here are to be verified by the contractor against the project drawings. All discrepancies shall be brought to the attention of the
- 4 No variation in rates shall be due based on variation in quantities, rate of exchange or escalation.
- 5 Errors and omissions of equipment or material required to execute the project solution specified or indicated on the drawings shall be brought to the attention
- All works required to execute the scope of works in accordance with the project program and quality requirements are deemed included in the rates and totals
- 7 Rates provided shall include for fixing, hangers, fittings, transformations, sealant and all other items required to deliver a functional system in accordance with
- 8 The bill of quantities shall not be used as the basis for material order.

TOTAL BLOCK 14 CARRIED FORWARD TO SUMMARY

	The values here shall be entered in South African Rands and exclusive of VAT.				
	uding delivery and installation, testing and commissioning with 12 months maintenance of the following				
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	HOSTEL MASTER BLOCK 14				
	Window Mounted Fans				
1,0	Supply install and commisson window mounted extraction fans as per the				
	drawings and specifications				
1,1	Type GX6 wall mounted fan in bathroom c/w back draught shutter (EF01) c/w ladder				
	strips, wall kit, On/Off swtch, automatic shutter and tamper-proof positive plug,				
	45 l/s, 11 Pa, 30W.	No	1	R	R
1,2	Type GX9 wall mounted fan in bathroom c/w back draught shutter (EF01) c/w ladder				
	strips, wall kit, On/Off swtch, automatic shutter and tamper-proof positive plug,				
	85 l/s, 37 Pa, 41W.	No	1	R	R
	03 1/3, 37 1 d, 41 W.	140	_		N .
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- 2 All works billed here shall include for the full scope of service specified including but not limited to supply, delivery, installation, commissioning,
- 3 Quantities indicated here are to be verified by the contractor against the project drawings. All discrepancies shall be brought to the attention of the
- 4 No variation in rates shall be due based on variation in quantities, rate of exchange or escalation.
- 5 Errors and omissions of equipment or material required to execute the project solution specified or indicated on the drawings shall be brought to the
- 6 All works required to execute the scope of works in accordance with the project program and quality requirements are deemed included in the rates and
- 7 Rates provided shall include for fixing, hangers, fittings, transformations, sealant and all other items required to deliver a functional system in accordance
- 8 The bill of quantities shall not be used as the basis for material order.
- The values here shall be entered in South African Rands and exclusive of VAT.

	The values here shall be entered in South African Rands and exclusive of VAT.				
	uding delivery and installation, testing and commissioning with 12 months maintenance o				
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	Block 15 - Hostel Administration				
1	Airconditioning Units				
	Suppy and install split inverter heat pump airconditioning units as per the drawings				
	and specifications				
	•				
1,1	24 000 BTU normimal cooling capacity inverter type compressor				
	Under Ceiling Suspended unit with heating complete with an				
	outdoor unit, 25A outdoor weather proof isolator, indoor isolator				
	next to the indoor unit and a wall mounted wireless remote				
	controller.	No.	2	R	R
1,2	Combination of Ø15,88 gas, Ø9,52 liquid and Ø16 condensate				
	drain pipe including armaflex insulation, gas and supports.	m	18	R	R
	., .				
1,3	Allow for communication and cable between indoor and outdoor			İ	
1,5	unit.	m	18	R	R
	wint.	- "	10		
1.4	Allow for a OFA singuit broad-on in the main DD	NI-	2		D
1,4	Allow for a 25A circuit breaker in the main DB.	No.	2	R	R
1,5	Allow for cable between DB and outdoor unit.	m	5	R	R
1,6	80 x 60 white plastic trunking with cover.	m	18	R	R
1,7	80 x 60 white plastic trunking bend with cover.	No.	2	R	R
	· · · · · · · · · · · · · · · · · · ·				
1,8	Perforated galvanised metal cable tray to for piping, with cover	m	1	R	R
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- 1 This Bill of Quantities forms part of the contract documents and is to be read in conjunction therewith.
- 2 All works billed here shall include for the full scope of service specified including but not limited to supply, delivery, installation, commissioning,
- 3 Quantities indicated here are to be verified by the contractor against the project drawings. All discrepancies shall be brought to the attention of the
- 4 No variation in rates shall be due based on variation in quantities, rate of exchange or escalation.
- 5 Errors and omissions of equipment or material required to execute the project solution specified or indicated on the drawings shall be brought to the attention
- All works required to execute the scope of works in accordance with the project program and quality requirements are deemed included in the rates and totals
- 7 Rates provided shall include for fixing, hangers, fittings, transformations, sealant and all other items required to deliver a functional system in accordance with
- 8 The bill of quantities shall not be used as the basis for material order.

TOTAL BLOCK 16 CARRIED FORWARD TO SUMMARY

9	The values here shall be entered in South African Rands and exclusive of VAT.		/A.O		dia tioni tel
	luding delivery and installation, testing and commissioning with 12 months maintenance of the fo				
ITEM NO	DESCRIPTION DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	STAFF HOUSE BLOCK 16	-			
	Window Mounted Fans	-			
	le ad totalla de contra del de la contra del contra de la contra del la contra del la contra del la contra de la contra de la contra del la contra de la contra del la cont	-			
1,0	Supply install and commisson window mounted extraction fans as per the				
	drawings and specifications				
1,1	Type GX9 wall mounted fan in kitchen c/w back draught shutter (EF01) c/w ladder				
	strips, wall kit, On/Off swtch, automatic shutter and tamper-proof positive plug,				
	180 l/s, 5 Pa, 41W.	No	1	R	R
1,2	Type GX6 wall mounted fan in shower room c/w back draught shutter (EF02) c/w				
	ladder strips, wall kit, On/Off swtch, automatic shutter and tamper-proof positive				
	plug, 70 l/s, 7 Pa, 30W.	No	1	R	R
1,3	Type GX6 wall mounted fan in bath room c/w back draught shutter (EF03) c/w				
	ladder strips, wall kit, On/Off swtch, automatic shutter and tamper-proof positive				
	plug, 70 l/s, 7 Pa, 30W.	No	1	R	R
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- 2 All works billed here shall include for the full scope of service specified including but not limited to supply, delivery, installation, commissioning,
- 3 Quantities indicated here are to be verified by the contractor against the project drawings. All discrepancies shall be brought to the attention of the
- 4 No variation in rates shall be due based on variation in quantities, rate of exchange or escalation.
- 5 Errors and omissions of equipment or material required to execute the project solution specified or indicated on the drawings shall be brought to the attention
- All works required to execute the scope of works in accordance with the project program and quality requirements are deemed included in the rates and totals
- 7 Rates provided shall include for fixing, hangers, fittings, transformations, sealant and all other items required to deliver a functional system in accordance with
- 8 The bill of quantities shall not be used as the basis for material order.

TOTAL BLOCK 17 CARRIED FORWARD TO SUMMARY

9	The values here shall be entered in South African Rands and exclusive of VAT.				
	uding delivery and installation, testing and commissioning with 12 months maintenance of the following				
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	STAFF HOUSE BLOCK 17				
	Window Mounted Fans				
1,0	Supply install and commisson window mounted extraction fans as per the				
	drawings and specifications				
1,1	Type GX9 wall mounted fan in kitchen c/w back draught shutter (EF01) c/w ladder				
	strips, wall kit, On/Off swtch, automatic shutter and tamper-proof positive plug,				
	180 l/s, 5 Pa, 41W.	No	1	R	R
1,2	Type GX6 wall mounted fan in shower room c/w back draught shutter (EF02) c/w				
	ladder strips, wall kit, On/Off swtch, automatic shutter and tamper-proof positive				
	plug, 70 l/s, 7 Pa, 30W.	No	1	R	R
	p. 18, 70 73, 7 1 13, 50 11.		_		
1.2	Type GX6 wall mounted fan in bath room c/w back draught shutter (EF03) c/w				
1,3					
	ladder strips, wall kit, On/Off swtch, automatic shutter and tamper-proof positive	B.1 -	4	В	D
	plug, 70 l/s, 7 Pa, 30W.	No	1	R	R
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- 1 This Bill of Quantities forms part of the contract documents and is to be read in conjunction therewith.
- 2 All works billed here shall include for the full scope of service specified including but not limited to supply, delivery, installation, commissioning,
- 3 Quantities indicated here are to be verified by the contractor against the project drawings. All discrepancies shall be brought to the attention of the
- 4 No variation in rates shall be due based on variation in quantities, rate of exchange or escalation.
- 5 Errors and omissions of equipment or material required to execute the project solution specified or indicated on the drawings shall be brought to the attention
- All works required to execute the scope of works in accordance with the project program and quality requirements are deemed included in the rates and totals
- 7 Rates provided shall include for fixing, hangers, fittings, transformations, sealant and all other items required to deliver a functional system in accordance with
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TOTAL BLOCK 18 CARRIED FORWARD TO SUMMARY

	The values here shall be entered in South African Rands and exclusive of VAT.				
	uding delivery and installation, testing and commissioning with 12 months maintenance of the following				
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	STAFF HOUSE BLOCK 18				
	Window Mounted Fans				
1,0	Supply install and commisson window mounted extraction fans as per the				
	drawings and specifications				
1,1	Type GX9 wall mounted fan in kitchen c/w back draught shutter (EF01) c/w ladder				
	strips, wall kit, On/Off swtch, automatic shutter and tamper-proof positive plug,				
	180 l/s, 5 Pa, 41W.	No	1	R	R
1,2	Type GX6 wall mounted fan in shower room c/w back draught shutter (EF02) c/w				
,	ladder strips, wall kit, On/Off swtch, automatic shutter and tamper-proof positive				
	plug, 70 l/s, 7 Pa, 30W.	No	1	R	R
1,3	Type GX6 wall mounted fan in bath room c/w back draught shutter (EF03) c/w				
1,3	ladder strips, wall kit, On/Off swtch, automatic shutter and tamper-proof positive				
	plug, 70 l/s, 7 Pa, 30W.	No	1	R	R
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- 2 All works billed here shall include for the full scope of service specified including but not limited to supply, delivery, installation, commissioning,
- 3 Quantities indicated here are to be verified by the contractor against the project drawings. All discrepancies shall be brought to the attention of the
- 4 No variation in rates shall be due based on variation in quantities, rate of exchange or escalation.
- 5 Errors and omissions of equipment or material required to execute the project solution specified or indicated on the drawings shall be brought to the attention
- All works required to execute the scope of works in accordance with the project program and quality requirements are deemed included in the rates and totals
- 7 Rates provided shall include for fixing, hangers, fittings, transformations, sealant and all other items required to deliver a functional system in accordance with
- 8 The bill of quantities shall not be used as the basis for material order.

TOTAL BLOCK 19 CARRIED FORWARD TO SUMMARY

9	The values here shall be entered in South African Rands and exclusive of VAT.				
	uding delivery and installation, testing and commissioning with 12 months maintenance of the following				
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	STAFF HOUSE BLOCK 19				
	Window Mounted Fans				
1,0	Supply install and commisson window mounted extraction fans as per the				
	drawings and specifications				
1,1	Type GX9 wall mounted fan in kitchen c/w back draught shutter (EF01) c/w ladder				
	strips, wall kit, On/Off swtch, automatic shutter and tamper-proof positive plug,				
	180 l/s, 5 Pa, 41W.	No	1	R	R
1,2	Type GX6 wall mounted fan in shower room c/w back draught shutter (EF02) c/w				
	ladder strips, wall kit, On/Off swtch, automatic shutter and tamper-proof positive				
	plug, 70 l/s, 7 Pa, 30W.	No	1	R	R
	p. 18, 70 73, 7 1 13, 50 11.		_		
1 2	Type GX6 wall mounted fan in bath room c/w back draught shutter (EF03) c/w				
1,3					
	ladder strips, wall kit, On/Off swtch, automatic shutter and tamper-proof positive	N/ -		В	D
	plug, 70 l/s, 7 Pa, 30W.	No	1	R	R
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- 1 This Bill of Quantities forms part of the contract documents and is to be read in conjunction therewith.
- 2 All works billed here shall include for the full scope of service specified including but not limited to supply, delivery, installation, commissioning, documentation,
- 3 Quantities indicated here are to be verified by the contractor against the project drawings. All discrepancies shall be brought to the attention of the responsible
  - No variation in rates shall be due based on variation in quantities, rate of exchange or escalation.
- 5 Errors and omissions of equipment or material required to execute the project solution specified or indicated on the drawings shall be brought to the attention
- All works required to execute the scope of works in accordance with the project program and quality requirements are deemed included in the rates and totals
- 7 Rates provided shall include for fixing, hangers, fittings, transformations, sealant and all other items required to deliver a functional system in accordance with
- 8 The bill of quantities shall not be used as the basis for material order.
  - The values here shall be entered in South African Rands and exclusive of VAT.

	The values here shall be entered in South African Rands and exclusive of VAT.  Juding delivery and installation, testing and commissioning with 12 months maintenance of the fo	llowingHV	AC systems as	per the tender	Irawings and the
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	TV Room Block 20				
1,0	Wall Ventilation Fans				
	Supply, delivery, installation and commissoning of wall mounted industrial fan				
	heater c/w wall mounted controller. Tempadair model 597053 or approved				
	equivalent.				
	3kW/14A/1P 300m³/h wall mounted adjustable industrial fan heater c/w variable				
	thermostatic controller, wiring between controller and fan and wall mounted isolator				
	isolator to suit in TV Room.	No	2	R	R
	3kW/14A/1P 300m³/h wall mounted adjustable industrial fan heater c/w variable				
	thermostatic controller, wiring between controller and fan and wall mounted				
	isolator to suit in Entertainment Room.	No	2	R	R
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- 1 This Bill of Quantities forms part of the contract documents and is to be read in conjunction therewith.
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- 3 Quantities indicated here are to be verified by the contractor against the project drawings. All discrepancies shall be brought to the attention of the responsible
- 4 No variation in rates shall be due based on variation in quantities, rate of exchange or escalation.
- 5 Errors and omissions of equipment or material required to execute the project solution specified or indicated on the drawings shall be brought to the attention of
- 6 All works required to execute the scope of works in accordance with the project program and quality requirements are deemed included in the rates and totals
- 7 Rates provided shall include for fixing, hangers, fittings, transformations, sealant and all other items required to deliver a functional system in accordance with the
- 8 The bill of quantities shall not be used as the basis for material order.
- The values here shall be entered in South African Rands and exclusive of VAT.

	luding delivery and installation, testing and commissioning with 12 months maintenance of the fol				
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	Type 1A Girls Hostel - 21				
1.0	Well Manusted Indeed Infrared Heaten			-	
1,0	Wall Mounted Indoor Infrared Heater Supply, delivery and installation of an Eco Heat 1500W Wall Mounted Indoor Infrared Heater			-	
	(Model 1C750W2) or approved equivalent.				
1,1	Type 1A Boys' Hostel	No.	8	R	R
-,-	Type In boys Hoster	NO.		,	, N
2	Inline Duct Extraction Fans				
	Supply and install Inline extraction fan for toilets with ductwork and grills as per layout in the				
	drawings. The tender shall determine all the necessary fittings, bends, transformation pieces,				
	stop ends, balancing dampsers and constant volume air diffusers as per the drawing layouts and				
	specifications.				
2,1	Xpelair Type XID200 (EF02) in-line duct fan c/w passive infrared sensor/controller ,				
	195 l/s, 180 Pa.	No.	2	R	R
2,2	Type XID250 (EF03) in-line duct fan c/w passive infrared sensor/controller ,				
	255 l/s, 180 Pa.	No	2	R	R
3	Air terminals	1			
	desc.	<b></b>			1_
3,1	Ø150 metal extract disk valves.	No	11	R	R
2.2	daga watala tarataka ahar	N1 -	4.4	_	
3,2	Ø200 metal extract disk valves.	No	14	R	R
3,3	350 x 350 Weather louvre c/w w.m.s. and wall box with transformation piece				
3,3	(EF01 and EF06).	No	2	R	R
		INO		,	N .
3,4	400 x 400 Weather louvre c/w w.m.s. and wall box with transformation piece				
<u> </u>	(EF01 and EF06).	No	2	R	R
4	Ducting				
	Uninsulated metal Ducting				
4,1	100 x 200	m	3	R	R
4,2	150 x 200	m	0,75	R	R
				<u> </u>	
4,3	150 x 250	m	2	R	R
4.4	200 v 200		1.25	В	B
4,4	200 x 200	m	1,35	R	R
4,5	200 x 250	m	1,5	R	R
٠,٠	1200.200		1,3		-
4,6	250 x 200	m	0,9	R	R
,-			,-		
4,7	250 x 250	m	3	R	R
4,8	300 x 200	m	1,35	R	R
4,9	300 x 250	m	2,7	R	R
5	Uninsulated Spigots	ļ			
					_
5,1	Ø150	No	11	R	R
F 2	4000	<del> </del>			1_
5,2	Ø200 	No	14	R	R
	Hainsulated Transformation Pieces (250)				
6	Uninsulated Transformation Pieces (350mm)				
6,1	100 x 200 - 150 x 200	No	1	R	R
υ,1	100 V 500 - 100 Y 500	No	1	1/	N.
	1	1	1	1	1

1				T	
6,2	100 x 200 - 200 x 200	No	1	R	R
	450, 000, 000				_
6,3	150 x 200 - 200 x 200	No	1	R	R
6,4	150 x 250 - 200 x 250	No	2	R	R
0,4	150 × 250 × 250	140			, K
6,5	200 x 200 - 250 x 200	No	1	R	R
,					
6,6	200 x 200 - 300 x 200	No	1	R	R
6,7	200 x 250 - 250 x 250	No	2	R	R
6,8	250 x 200 - 300 x 200	No	1	R	R
	202 202 202				_
6,9	300 x 200 - 300 x 250	No	2	R	R
6	Uninsulated Flexible Ducting				
ь	Uninsulated Flexible Ducting				
6,1	Ø150	m	11	R	R
0,1	9130	""	11		IN .
6,2	Ø200	m	14	R	R
0,2	p100				
	Window Mounted Fans				
7,0	Supply install and commisson window mounted extraction fans as per the				
	drawings and specifications				
7,1	Xpelair Type GX6 window mounted fan with automatic shutter (EF01 ) c/w on/off infrared				
	switch, 50 l/s, 100 Pa, 6W. (Or similar approved.)	No	2	R	R
	•				
		-			
				l	

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- 3 Quantities indicated here are to be verified by the contractor against the project drawings. All discrepancies shall be brought to the attention of the responsible
- 4 No variation in rates shall be due based on variation in quantities, rate of exchange or escalation.
- 5 Errors and omissions of equipment or material required to execute the project solution specified or indicated on the drawings shall be brought to the attention of the
- 6 All works required to execute the scope of works in accordance with the project program and quality requirements are deemed included in the rates and totals
- Rates provided shall include for fixing, hangers, fittings, transformations, sealant and all other items required to deliver a functional system in accordance with the
- 8 The bill of quantities shall not be used as the basis for material order.

pply incl	luding delivery and installation, testing and commissioning with 12 months maintenance of the fol DESCRIPTION	IowingHVAC UNIT	QUANTITY	RATE	AMOUNT
LIVI NO	Type 1A Girls Hostel - 22	ONIT	QUANTITI	RAIL	AMOUNT
1,0	Wall Mounted Indoor Infrared Heater				
	Supply, delivery and installation of an Eco Heat 1500W Wall Mounted Indoor Infrared Heater				
	(Model 1C750W2) or approved equivalent.				1
1,1	Type 1A Boys' Hostel	No.	8	R	R
_,_			-		
2	Inline Duct Extraction Fans				
	Supply and install Inline extraction fan for toilets with ductwork and grills as per layout in the				
	drawings. The tender shall determine all the necessary fittings, bends, transformation pieces,				
	stop ends, balancing dampsers and constant volume air diffusers as per the drawing layouts and specifications.				
2,1	Xpelair Type XID200 (EF02) in-line duct fan c/w passive infrared sensor/controller ,		_		
	195 l/s, 180 Pa.	No.	2	R	R
2,2	Type XID250 (EF03) in-line duct fan c/w passive infrared sensor/controller ,				1
	255 l/s, 180 Pa.	No	2	R	R
3	Air terminals				1
3	Air terminals				
3,1	Ø150 metal extract disk valves.	No	11	R	R
	doo			_	1_
3,2	Ø200 metal extract disk valves.	No	14	R	R
3,3	350 x 350 Weather louvre c/w w.m.s. and wall box with transformation piece				
	(EF01 and EF06).	No	2	R	R
3,4	400 x 400 Weather louvre c/w w.m.s. and wall box with transformation piece				
3,4	(EF01 and EF06).	No	2	R	R
4	Ducting				
	Uninsulated metal Ducting				
	· ·				
4,1	100 x 200	m	3	R	R
4,2	150 x 200	m	0,75	R	R
,			-, -		
4,3	150 x 250	m	2	R	R
4,4	200 x 200	m	1,35	R	R
.,.			2,00		
4,5	200 x 250	m	1,5	R	R
4,6	250 x 200	m	0,9	R	R
.,0	200 × 200		0,5		
4,7	250 x 250	m	3	R	R
4,8	300 x 200	m	1,35	R	R
٠,٠	300 x 200	- 111	1,33	"	1.,
4,9	300 x 250	m	2,7	R	R
5	Uninsulated Spigots				
3	ommanarea apigota				
5,1	Ø150	No	11	R	R
F 2	4222		4:		ļ
5,2	Ø200	No	14	R	R
6	Uninsulated Transformation Pieces (350mm)				1
6,1	100 x 200 - 150 x 200	No	1	R	R
	1	ī	i .	i	1

		ı	1		
6,2	100 x 200 - 200 x 200	No	1	R	R
6,3	150 x 200 - 200 x 200	No	1	R	R
6,4	150 x 250 - 200 x 250	No	2	R	R
6,5	200 x 200 - 250 x 200	No	1	R	R
	200, 200, 200, 200	NI.	4	_	
6,6	200 x 200 - 300 x 200	No	1	R	R
6,7	200 x 250 - 250 x 250	No	2	R	R
6,8	250 x 200 - 300 x 200	No	1	R	R
6,9	300 x 200 - 300 x 250	No	2	R	R
6	Uninsulated Flexible Ducting				
6,1	Ø150	m	11	R	R
6,2	Ø200	m	14	R	R
	Window Mounted Fans				
7,0	Supply install and commisson window mounted extraction fans as per the drawings and specifications				
	urawings and specifications				
7,1	Xpelair Type GX6 window mounted fan with automatic shutter (EF01 ) c/w on/off infrared				
	switch, 50 l/s, 100 Pa, 6W. (Or similar approved.)	No	2	R	R
				1	
				1	
		•	•	•	

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- 3 Quantities indicated here are to be verified by the contractor against the project drawings. All discrepancies shall be brought to the attention of the
- 4 No variation in rates shall be due based on variation in quantities, rate of exchange or escalation.
- 5 Errors and omissions of equipment or material required to execute the project solution specified or indicated on the drawings shall be brought to the attention
- All works required to execute the scope of works in accordance with the project program and quality requirements are deemed included in the rates and totals
- Rates provided shall include for fixing, hangers, fittings, transformations, sealant and all other items required to deliver a functional system in accordance with
- 8 The bill of quantities shall not be used as the basis for material order.

TOTAL BLOCK 23 CARRIED FORWARD TO SUMMARY

	d in South African Rands and exclusive of VAT.				
	testing and commissioning with 12 months maintenance of the fo				
EM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
HOUSE MOTHER BLOCK 23					
Magnata Banasa de Legar					
Window Mounted Fans					
10 Complete and a complete					
	window mounted extraction fans as per the				
drawings and specifications					
1,1 Type GX6 wall mounted fan in b	pathroom c/w back draught shutter (EF01) c/w ladder				
	stomatic shutter and tamper-proof positive plug,				
45 l/s, 11 Pa, 30W.	diomatic shutter and tamper-proof positive plug,	NI-			
43 1/5, 11 Fd, 30W.		No	1	R	R
10 7 000 11 116 11					
	pathroom c/w back draught shutter (EF01) c/w ladder				
	utomatic shutter and tamper-proof positive plug,				
85 l/s, 37 Pa, 41W.		No	1	R	R
		<del>                                     </del>			
		-			
		<u> </u>			
		1			
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		<b>!</b>			
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		<del>                                     </del>			
		<del>                                     </del>			
		1			<del>                                     </del>
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- 2 All works billed here shall include for the full scope of service specified including but not limited to supply, delivery, installation, commissioning, documentation,
- 3 Quantities indicated here are to be verified by the contractor against the project drawings. All discrepancies shall be brought to the attention of the responsible
- 4 No variation in rates shall be due based on variation in quantities, rate of exchange or escalation.
- Errors and omissions of equipment or material required to execute the project solution specified or indicated on the drawings shall be brought to the attention of the 5
- 6 All works required to execute the scope of works in accordance with the project program and quality requirements are deemed included in the rates and totals
- 7 Rates provided shall include for fixing, hangers, fittings, transformations, sealant and all other items required to deliver a functional system in accordance with the
- The bill of quantities shall not be used as the basis for material order.

9	The values here shall be entered in South African Rands and exclusive of VAT.				
	luding delivery and installation, testing and commissioning with 12 months maintenance of the fol				
ITEM NO	DESCRIPTION Ture 14 Cirls Heatel 25	UNIT	QUANTITY	RATE	AMOUNT
	Type 1A Girls Hostel - 25				
1,0	Wall Mounted Indoor Infrared Heater				
	Supply, delivery and installation of an Eco Heat 1500W Wall Mounted Indoor Infrared Heater				
	(Model 1C750W2) or approved equivalent.				
- 4.4	T 44 D d. U d. l	N	0		
1,1	Type 1A Boys' Hostel	No.	8	R	R
2	Inline Duct Extraction Fans				
	Supply and install Inline extraction fan for toilets with ductwork and grills as per layout in the				
	drawings. The tender shall determine all the necessary fittings, bends, transformation pieces,				
	stop ends, balancing dampsers and constant volume air diffusers as per the drawing layouts and				
	specifications.				
2.1	Verlete Teach VID200 (FF00) to the death for a few and a state of the second control of				
2,1	Xpelair Type XID200 (EF02) in-line duct fan c/w passive infrared sensor/controller ,	No	2	R	R
	195 l/s, 180 Pa.	No.	2	N.	K
2,2	Type XID250 (EF03) in-line duct fan c/w passive infrared sensor/controller ,				
	255 l/s, 180 Pa.	No	2	R	R
· · · · ·					
3	Air terminals		1		
2.1	MATO weekel systemate disk, well-re-	N-	11	В	
3,1	Ø150 metal extract disk valves.	No	11	R	R
3,2	Ø200 metal extract disk valves.	No	14	R	R
3,3	350 x 350 Weather louvre c/w w.m.s. and wall box with transformation piece				
	(EF01 and EF06).	No	2	R	R
3,4	400 x 400 Weather louvre c/w w.m.s. and wall box with transformation piece (EF01 and EF06).	No	2	R	R
	(crot and croo).	No	2	K	K
4	Ducting				
	Uninsulated metal Ducting				
4,1	100 x 200	m	3	R	R
4,2	150 x 200	m	0,75	R	R
4,2	130 % 200	- 111	0,73	, and the second	K
4,3	150 x 250	m	2	R	R
4,4	200 x 200	m	1,35	R	R
4.5	200 250		4.5		
4,5	200 x 250	m	1,5	R	R
4,6	250 x 200	m	0,9	R	R
.,,,			5,5		
4,7	250 x 250	m	3	R	R
4,8	300 x 200	m	1,35	R	R
4.0	300 x 250		2,7	R	D D
4,9	300 A 230	m	۷,1	Λ.	R
5	Uninsulated Spigots				
5,1	Ø150	No	11	R	R
	dose				<u> </u>
5,2	Ø200	No	14	R	R
6	Uninsulated Transformation Pieces (350mm)		1	+	
U	ominadated transformation rieces (550min)	<del>                                     </del>			
6,1	100 x 200 - 150 x 200	No	1	R	R

6,2	100 x 200 - 200 x 200	No	1	R	R
0,2	100 x 200 - 200 x 200	INO	1	N.	N .
6,3	150 x 200 - 200 x 200	No	1	R	R
6,4	150 x 250 - 200 x 250	No	2	R	R
0,4		110	- L		
6,5	200 x 200 - 250 x 200	No	1	R	R
6,6	200 x 200 - 300 x 200	No	1	R	R
6,7	200 x 250 - 250 x 250	No	2	R	R
6,8	250 x 200 - 300 x 200	No	1	R	R
	200 200 200 200			_	_
6,9	300 x 200 - 300 x 250	No	2	R	R
6	Uninsulated Flexible Ducting				
C 1	Ø150		44	n	
6,1	M120	m	11	R	R
6,2	Ø200	m	14	R	R
	Window Mounted Fans				
7,0	Supply install and commisson window mounted extraction fans as per the				
	drawings and specifications				
7,1	Xpelair Type GX6 window mounted fan with automatic shutter (EF01 ) c/w on/off infrared				
	switch, 50 l/s, 100 Pa, 6W. (Or similar approved.)	No	2	R	R
				L	

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- 5 Errors and omissions of equipment or material required to execute the project solution specified or indicated on the drawings shall be brought to the attention of
- All works required to execute the scope of works in accordance with the project program and quality requirements are deemed included in the rates and totals
- 7 Rates provided shall include for fixing, hangers, fittings, transformations, sealant and all other items required to deliver a functional system in accordance with the
- 8 The bill of quantities shall not be used as the basis for material order.
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upply incl	uding delivery and installation, testing and commissioning with 12 months maintenance of the fol	UNIT	QUANTITY	RATE	AMOUNT
EW NO	Type 1A Girls Hostel - 26	UNII	QUANTITY	KAIE	AMOUNT
	Type 1A Girls Hostel - 26				
1,0	Wall Mounted Indoor Infrared Heater				
	Supply, delivery and installation of an Eco Heat 1500W Wall Mounted Indoor Infrared Heater				
	(Model 1C750W2) or approved equivalent.				
1,1	Type 1A Boys' Hostel	No.	8	R	R
_	L.P D. of F. L. of L F				
2	Inline Duct Extraction Fans Supply and install Inline extraction fan for toilets with ductwork and grills as per layout in the				
	drawings. The tender shall determine all the necessary fittings, bends, transformation pieces,				
	stop ends, balancing dampsers and constant volume air diffusers as per the drawing layouts and				
	specifications.				
2,1	Xpelair Type XID200 (EF02) in-line duct fan c/w passive infrared sensor/controller ,				
	195 l/s, 180 Pa.	No.	2	R	R
2,2	Type XID250 (EF03) in-line duct fan c/w passive infrared sensor/controller ,		_	<u> </u>	1_
	255 l/s, 180 Pa.	No	2	R	R
3	Air terminals		1		
	,				
3,1	Ø150 metal extract disk valves.	No	11	R	R
3,2	Ø200 metal extract disk valves.	No	14	R	R
3,3	350 x 350 Weather louvre c/w w.m.s. and wall box with transformation piece	NI.	2		1_
	(EF01 and EF06).	No	2	R	R
3,4	400 x 400 Weather louvre c/w w.m.s. and wall box with transformation piece				
3,4	(EF01 and EF06).	No	2	R	R
	11-12-11-11-11-11-11-11-11-11-11-11-11-1		_		
4	Ducting				
	Uninsulated metal Ducting				
	400 000			_	1_
4,1	100 x 200	m	3	R	R
4,2	150 x 200	m	0,75	R	R
7,2	250 × 260		0,73		
4,3	150 x 250	m	2	R	R
4,4	200 x 200	m	1,35	R	R
				_	
4,5	200 x 250	m	1,5	R	R
4,6	250 x 200	m	0,9	R	R
4,0	250 × 200	""	0,3	N.	N .
4,7	250 x 250	m	3	R	R
4,8	300 x 200	m	1,35	R	R
4,9	300 x 250	m	2,7	R	R
5	Uninculated Spigots				
5	Uninsulated Spigots				
5,1	Ø150	No	11	R	R
-,-		1.0		-	<u> </u>
5,2	Ø200	No	14	R	R
6	Uninsulated Transformation Pieces (350mm)				
		<u> </u>			
6,1	100 x 200 - 150 x 200	No	1	R	R
		1	1		

				1	
6,2	100 x 200 - 200 x 200	No	1	R	R
	450, 200, 200, 200	NI.			
6,3	150 x 200 - 200 x 200	No	1	R	R
6,4	150 x 250 - 200 x 250	No	2	R	R
0,4	130 x 230 - 200 x 230	INU		N.	N.
6,5	200 x 200 - 250 x 200	No	1	R	R
0,5	200 x 200 250 x 200	140			K
6,6	200 x 200 - 300 x 200	No	1	R	R
0,0	200 × 200 × 200				
6,7	200 x 250 - 250 x 250	No	2	R	R
-,					
6,8	250 x 200 - 300 x 200	No	1	R	R
6,9	300 x 200 - 300 x 250	No	2	R	R
6	Uninsulated Flexible Ducting				
6,1	Ø150	m	11	R	R
6,2	Ø200	m	14	R	R
	Window Mounted Fans				
7,0	Supply install and commisson window mounted extraction fans as per the				
	drawings and specifications				
7,1	Xpelair Type GX6 window mounted fan with automatic shutter (EF01 ) c/w on/off infrared				
	switch, 50 l/s, 100 Pa, 6W. (Or similar approved.)	No	2	R	R
<u> </u>					
<u> </u>					
-					
<b> </b>					
<b>-</b>					
<b> </b>					
	1			·	1

# MOEDWIL COMBINED SCHOOL

# SUMMARY OF BILLS OF QUANTITIES - HVAC

ITEM	BILL NUMBER	Total: Amount
1	PRELIMINARY & GENERALS	R
2	BLOCK 6	R
3	BLOCK 7	R
4	BLOCK 8	R
4	DLOCK 6	N.
5	BLOCK 9	R
6	BLOCK 10	R
7	BLOCK 11	R
_		_
8	BLOCK 12	R
9	BLOCK 14	R
9	BLOCK 14	ĸ
10	BLOCK 15	R
11	BLOCK 16	R
12	BLOCK 17	R
13	BLOCK 18	R
14	BLOCK 19	R
14	BLOCK 19	ĸ
15	BLOCK 20	R
16	BLOCK 21	R
17	BLOCK 22	R
18	BLOCK 23	R
10	DIOCK 3E	
19	BLOCK 25	R
20	BLOCK 26	R
20	DECONE D	-
TOTAL F	PHASE 2 HVAC EXCLUDING VAT	R

## Moedwil Combined School - Fire System BOQ

#### **Preliminaries to the Bill**

- 1 This Bill of Quantities forms part of the contract documents and is to be read in conjunction therewith.
- 2 All works billed here shall include for the full scope of service specified including but not limited to supply, delivery, installation, commissioning, documentation, building tuning, project closeout and administrative requirements, and all works as necessary to provide a working product in accordance with the project performance criteria.
- 3 Quantities indicated here are to be verified by the contractor against the project drawings. All discrepancies shall be brought to the attention of the responsible engineer. Should no queries be raised the contract totals and rates provided shall be deemed sufficient for the due execution of the works in accordance with the engineers intent communicated through the project drawings and these specifications.
- 4 No variation in rates shall be due based on variation in quantities, rate of exchange or escalation.
- 5 Errors and omissions of equipment or material required to execute the project solution specified or indicated on the drawings shall be brought to the attention of the responsible engineer for clarification, failing which the provision of such items shall be deemed included in the project rates.
- 6 All works required to execute the scope of works in accordance with the project program and quality requirements are deemed included in the rates and totals provided below.
- 7 Rates provided shall include for fixing, hangers, fittings, transformations, sealant and all other items required to deliver a functional system in accordance with the design intent and specifications. Rate includes the supply,delivery,labour and installation of equipment
- 8 The bill of quantities shall not be used as the basis for material order.
- 9 The values here shall be entered in South African Rands and exclusive of VAT.

## **BILL 1: PRELIMINARY & GENERALS**

		Unit	Quantity	Rate	Amount
1,1 Site Establish	nent	lot 1 R R  No 3 R R  R  rovision for sleeves, building ing equipment to complete the lot - R R  NCE MANUALS rovision for 4 x copies of O & M the detail in the Standard  No 3 R R  R	R		
1,2 Workshop Dra	wings	No	3	R	R
-,	6		_		
1.3 Builder's Wor	(S				
	r shall make provision for sleeves, building	lot			
installation.	other supporting equipment to complete the	101	_	R	R
1.4 OPERATING A	ND MAINTENANCE MANUALS				
	r shall make provision for 4 x copies of O & M				
	cordance with the detail in the Standard				
specification.		No	3	R	R
1.5 TRAINING OF	CLIENTS STAFF				
The Contracto	r shall make provision for 1 full day's training of				
the Clients Sta	ff, on the operation of the installation.				
		1	5	R	R
1.6 AS-BUILT LAY	DUT DRAWINGS				
The Contracto	r shall make provision for a detailed set of As				
Fitted Layout	drawings of the entire installation, as the project				
progresses.		No	3	R	R

1.7	COMMISIONING AND TESTING				
	The Contractor shall make provision to commission and				
	pressure test the installation during construction				
		lot	1	R	R
	MAINTENANCE AND GUARANTEE				
	The Contractor shall make provision for 1 x Full years				
	Maintenance and Guarantee of the entire installation. 11 x				
	Standard Maintenance visits and 1 x Major service is required		4.0	_	
	throughout the 12 months.	lot	12	R	R
1.9	External uPVC or HDPE pipework connection from site				
1.9	reticulation undergound pipework to connect to internal copper	No			
	pipework.	NO	6	R	R
	pipework.		6	K	K
1.10	Contingency Amount: Included for the future unforeseen future				
1.10	changes.	SUM	_	_	R
	Changes.			_	IN .
					1
					1
					<del> </del>
OTAL Ps	& Gs CARRIED FORWARD TO SUMMARY				R

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- 5 Errors and omissions of equipment or material required to execute the project solution specified or indicated on the
- 6 All works required to execute the scope of works in accordance with the project program and quality requirements are
- 7 Rates provided shall include for fixing, hangers, fittings, transformations, sealant and all other items required to deliver a
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ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
1	GALVANIZED PIPING SYSTEM: (Above ground)				
	Galvanized Steel Pipe: (Surface Mounted)				
	Galvanized steel pipe in accordance with SANS 62-1 Class MEDIUM				
	installed complete with short lengths, cutting, screwed				
	connections strictly in accordance with the Manufacturer's				
	instructions, support brackets etc.				
	Threading conforms to SABS 1109 (equivalent to ISO 7)				
	Pipes are galvanized to EN 10240 or ISO 1461 as required				
	All cold water pipes to be installed as per SANS 10252 regulations.				
	Make all threaded pipe joints with approved cold water pipe				
	jointing compound or Teflon tape. Provide flanged joints with				
	gaskets. Flanges must be in accordance with BS10, Table F. Ream				
	ends of pipes before fitting. Install pipework at a slight slope to				
	avoid air entrapment. Install pipes in a neat and symmetrical				
	manner.				
	All piping must be pressure tested in the presence of the				
	Department and the Department must carry out all inspections				
	before backfilling takes place				
1,0	Fire Hose Reels				
	Supply and install and commision 30m Fire Hose reels as per the				
	Fire Site layout drawing.	No	6	R	R
1,2	Fire Main Ring 100mm HPPE pipework including trenching Fire				
	reticulation including trenching	Sum	2600	R	R
1,3	10KL Jojo Tanks mounted on steel Stab 200mm High for Fire	No	30	R	R
2	FIRE EQUIPMENT				
2,3	FIRE HYDRANT OUTDOOR:				
	All fire hydrants must conform to SANS 1128 - Part I.				

	Hydrant hose couplings, connectors and branch pipe and nozzle connections must conform to SANS 1128 - Part II.Provide hydrant valves with upwards oblique, downwards oblique, right angle or straight through pattern as specified in the Project Specification.Install outdoor hydrants either above ground or underground on permanently charged mains as indicated on the project drawings.Underground hydrants must open in a clockwise direction in accordance with SANS1128 Part I, unless specified otherwise in the Project Specification.Fit above ground hydrant valves with sheathed spindles suitable for tamper proof key type handles. Sheathed valves spindles must be of the shielded type with the spindle not protruding beyond the shield.				
2,3	FIRE HYDRANT OUTDOOR:				
	All fire hydrants must conform to SANS 1128 - Part I.				
	Hydrant hose couplings, connectors and branch pipe and nozzle connections must conform to SANS 1128 - Part II.Provide hydrant valves with upwards oblique, downwards oblique, right angle or straight through pattern as specified in the Project Specification.Install outdoor hydrants either above ground or underground on permanently charged mains as indicated on the project drawings.Underground hydrants must open in a clockwise direction in accordance with SANS1128 Part I, unless specified otherwise in the Project Specification.Fit above ground hydrant valves with sheathed spindles suitable for tamper proof key type handles. Sheathed valves spindles must be of the shielded type with the spindle not protruding beyond the shield.  Install outdoor hydrants either above ground or underground on permanently charged mains as indicated on the project drawings.				
2.3.1	Complete installed fire hydrant	No	23	R	R
2.3.1	complete instance me nyurant	140		Λ	
3	<u>Signage</u>				
	Signage to SANS standrards for all fire requirements. This includes the entire site.				
3,1	Supply, delivery and installation of a green Fire Assembly				
	Point sign mounted on a post and located at the positions				
	shown on the drawings.	No	6	R	R

	HDPE Piping System: (Under ground buried)				
	The Expirit System. (Order ground buried)				
	HDPE Pipe: (Under ground buried)				
	HDPE pipe to SANS 4427 Part 2				
	Material grade PE 100 and pressure rating PN 20				
	Installed complete with cutting, strictly in accordance with the				
	Manufacturer's instructions and SANS 4427				
	Connections underground shall be busion or butt welded only.				
	Supply pipe in 12 m (minimum) lengths.				
	To ensure water tightness use butt-welded joints (SABS 0268 – Part				
	1) or electro-fusion welding (SABS 0268 – Part 2) where butt				
	welding is not possible.				
	No compression fittings are allowed except if in watertight				
	manholes.				
	All piping must be pressure tested in the presence of the				
	Department and the Department must carry out all inspections				
	before backfilling takes place.				
	Prepare trenches and do backfilling and compacting in accordance				
	with SANS 1200.				
	Underground 110mm main fire ring networks including all bends,				
	isolation valves, non return valves, air valves, strainers, reducing				
	Tees to hydrants and fire hose connections as per the fire site				
	layout drawings including trenching and backfilling				
		m	2200	R	R
	HDPE Manholes				
	HDPE manholes: All material for HDPE manholes to conform to				
	HDPE: Type PE 100 SABS ISO 4427 specifications and all welding to				
	SABS 0268, SABS 0269, SABS method 1269, SABS 0270, SABS 1655				
	and SABS 1671. Manhole shafts to be structured or solid wall HDPE				
	pipes with 8,0 kN/m2 ring stiffness or alternatively manufactured				
	to same standard. HDPE pipes to be welded to manhole. Manhole				
	to be similar				
	to HDPE sewer manholes (detail TYPE NO DT 04/D) and welding				
	details as per included detail (TYPE NO DT 20/SW).				
	Complete with cover.				
<u> </u>					
<u> </u>	Booster connection				<del> </del>
	Duplex full bore booster point with pressure gauge to SANS				1
	standard				
<u> </u>	jaranual u			+	<del> </del>
<u> </u>	Install complete booster connection	No	3	R	R
<u> </u>	Install complete booster connection	No	3	N.	<u>'</u>
<u> </u>	Story Sustian Hudrant Connection				
	Storz Suction Hydrant Connection			+	<del> </del>
	110mm Storz suction hydrant connection				
	linetell consolete continuity is a	<b>.</b>		-	
<u></u>	Install complete suction hydrant connection	No	3	R	R
				1	-
<b>—</b>				I	
	Trenching and Backfilling for hydrant main piping				
	Trenching and Backfilling for hydrant main piping  Trenching and backfilling for hydrant piping				
			1200	R	R

		1			
TOTAL SITE	CARRIED FORWARD TO SUMMARY				R

- 1 This Bill of Quantities forms part of the contract documents and is to be read in conjunction therewith.
- 2 All works billed here shall include for the full scope of service specified including but not limited to supply, delivery, installation,
- 3 Quantities indicated here are to be verified by the contractor against the project drawings. All discrepancies shall be brought to
- 4 No variation in rates shall be due based on variation in quantities, rate of exchange or escalation.
- 5 Errors and omissions of equipment or material required to execute the project solution specified or indicated on the drawings
- 6 All works required to execute the scope of works in accordance with the project program and quality requirements are deemed
- 7 Rates provided shall include for fixing, hangers, fittings, transformations, sealant and all other items required to deliver a
- 8 The bill of quantities shall not be used as the basis for material order.
- 9 The values here shall be entered in South African Rands and exclusive of VAT.

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	ABOVE THE GROUND EQUIPMENT - BLOCK 6 TYPE 1A BOYS				
1	FIRE EQUIPMENT				
	FIRE HOSE REEL:				
	Install non-swinging, rotary pattern type fire hose reels in the positions				
	as indicated on the project drawings.				
	The fire hose reels must be complete with 30 m long, 20 mm diameter				
	hose, hose run-out guide, clamps, nozzle bracket, fixing brackets and				
	bolts, nozzle-cock and 25 mm stop valve all to conform to SANS 543. Fit				
	rotary type cocks to the hose reels.				
	Provide hose reel bases with four bolt holes spaced and orientated as				
	per SANS 543. Use bolts of at least 10 mm diameter and of a suitable				
	length to fix the hose reel to the wall.				
	Hose reel components must be manufactured from the following				
	components:				
	Water seal housing and spindle: In accordance with SANS 543				
	Fire hose: In accordance with SANS 543				
	Hose run out guide: Chromium plated steel				
	Base: Mild steel				
	Busic. Ivilla steel				
	Complete installed firehose reel	No	1	R	R
2	PORTABLE FIRE EXTINGUISHER:				
	Install portable fire extinguishers with steel bases in the positions				
	indicated on the project drawings.				
	Portable fire extinguishers must be of the type as specified in the				
	Project Specification in accordance with SANS 1 0400 and SANS 0105.				
	CO2 Type: SANS 1567. Extinguishers must be in accordance with SANS				
	1910. Each fire extinguisher must be complete with a Meranti backing				
	board, mounting brackets and suitable wall anchors. Mount the fire				
	extinguishers with the handle 1,2m from finished floor level.				
2,1	4.5 kg CO2 Extinguisher complete with mounting board and				
*	hanging bracket				
2.1.1	Positioned in building	No	2	R	R
2,2	9 kg DCP Extinguisher complete with mounting board and				
	hanging bracket				
2.2.1	Positioned in building	No	2	R	R

3	FIRE SUPPRESSION				
3,1	None				
4	Signago			+	
4	Signage Signage to SANS standrards for all fire requirements.				
	Signage to SANS standards for an increquirements.			†	
4,1	Supply, delivery and installation of a wall mounted single				
	sided 150mm module Green Photo Luminescent E3 Fire			1	
	Escape sign without a frame at the positions shown on the				
	drawing.	No	4	R	R
4,2	Supply, delivery and installation of a wall mounted single				
	sided 150mm module Red Photo Luminescent F4 Fire	_		<b>-</b>	
	Extinguisher sign without a frame at the positions shown on	N-	4	R	
	the drawing.	No	4	K	R
4,3	Supply, delivery and installation of a wall mounted single				
.,5	sided 150mm module Red Photo Luminescent F13 Fire Hose Reel				
	Extinguisher sign without a frame at the positions shown on			†	
	the drawing.	No	1	R	R
				<b>-</b>	
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TOTAL BI	OCK 6 BOYS FIRE CARRIED FORWARD TO SUMMARY				R

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- 3 Quantities indicated here are to be verified by the contractor against the project drawings. All discrepancies shall be brought to
- 4 No variation in rates shall be due based on variation in quantities, rate of exchange or escalation.
- 5 Errors and omissions of equipment or material required to execute the project solution specified or indicated on the drawings
- 6 All works required to execute the scope of works in accordance with the project program and quality requirements are deemed
- 7 Rates provided shall include for fixing, hangers, fittings, transformations, sealant and all other items required to deliver a
- 8 The bill of quantities shall not be used as the basis for material order.
- 9 The values here shall be entered in South African Rands and exclusive of VAT.

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	ABOVE THE GROUND EQUIPMENT - BLOCK 7 TYPE 2A BOYS				
1	FIRE EQUIPMENT				
	FIRE HOSE REEL:				
	Install non-swinging, rotary pattern type fire hose reels in the positions				
	as indicated on the project drawings.  The fire hose reels must be complete with 30 m long, 20 mm diameter				
	hose, hose run-out guide, clamps, nozzle bracket, fixing brackets and				
	bolts, nozzle-cock and 25 mm stop valve all to conform to SANS 543. Fit				
	rotary type cocks to the hose reels.				
-	Provide hose reel bases with four bolt holes spaced and orientated as				
	per SANS 543. Use bolts of at least 10 mm diameter and of a suitable				
	length to fix the hose reel to the wall.				
	Hose reel components must be manufactured from the following				
	components:				
	Water seal housing and spindle: In accordance with SANS 543				
	Fire hose: In accordance with SANS 543				
	Hose run out guide: Chromium plated steel				
	Base: Mild steel				
	Complete installed firehose reel	No	1	R	R
2	PORTABLE FIRE EXTINGUISHER:				
	Install portable fire extinguishers with steel bases in the positions				
	indicated on the project drawings.				
	Portable fire extinguishers must be of the type as specified in the				
	Project Specification in accordance with SANS 1 0400 and SANS 0105.  CO2 Type: SANS 1567. Extinguishers must be in accordance with SANS				
	1910. Each fire extinguisher must be complete with a Meranti backing				
	board, mounting brackets and suitable wall anchors. Mount the fire				
	extinguishers with the handle 1,2m from finished floor level.				
	examples with the nation 1)211 from missing from level.				
2,1	4.5 kg CO2 Extinguisher complete with mounting board and				
,- -	hanging bracket				
2.1.1	Positioned in building	No	1	R	R
2,2	9 kg DCP Extinguisher complete with mounting board and				
	hanging bracket				
2.2.1	Positioned in building	No	4	R	R

3	FIRE SUPPRESSION			<del> </del>		
١	THE SOLT RESSION			+		
3,1	None			+		
3,1	None					
4	Cianaga			+		
4	Signage	_		<del> </del>		
	Signage to SANS standrards for all fire requirements.					
				<b>!</b>		
4,1	Supply, delivery and installation of a wall mounted single					
	sided 150mm module Green Photo Luminescent E3 Fire					
	Escape sign without a frame at the positions shown on the					
	drawing.	No	3	R	R	
4,2	Supply, delivery and installation of a wall mounted single					
	sided 150mm module Red Photo Luminescent F4 Fire					
	Extinguisher sign without a frame at the positions shown on					
	the drawing.	No	3	R	R	
				1		
4,3	Supply, delivery and installation of a wall mounted single			1		
	sided 150mm module Red Photo Luminescent F13 Fire Hose Reel			1		
	Extinguisher sign without a frame at the positions shown on					
	the drawing.	No	3	R	R	
	the drawing.	110		1"	, ,	
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TOTAL I	BLOCK 7 FIRE CARRIED FORWARD TO SUMMARY				R	

- 1 This Bill of Quantities forms part of the contract documents and is to be read in conjunction therewith.
- 2 All works billed here shall include for the full scope of service specified including but not limited to supply, delivery, installation,
- 3 Quantities indicated here are to be verified by the contractor against the project drawings. All discrepancies shall be brought to
- 4 No variation in rates shall be due based on variation in quantities, rate of exchange or escalation.
- 5 Errors and omissions of equipment or material required to execute the project solution specified or indicated on the drawings
- 6 All works required to execute the scope of works in accordance with the project program and quality requirements are deemed
- 7 Rates provided shall include for fixing, hangers, fittings, transformations, sealant and all other items required to deliver a
- 8 The bill of quantities shall not be used as the basis for material order.
- 9 The values here shall be entered in South African Rands and exclusive of VAT.

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	ABOVE THE GROUND EQUIPMENT - BLOCK 8 TYPE 2A BOYS				
1	FIRE EQUIPMENT				
	FIRE HOSE REEL:				
	Install non-swinging, rotary pattern type fire hose reels in the positions				
	as indicated on the project drawings.  The fire hose reels must be complete with 30 m long, 20 mm diameter				
	hose, hose run-out guide, clamps, nozzle bracket, fixing brackets and				
	bolts, nozzle-cock and 25 mm stop valve all to conform to SANS 543. Fit				
	rotary type cocks to the hose reels.				
	Provide hose reel bases with four bolt holes spaced and orientated as				
	per SANS 543. Use bolts of at least 10 mm diameter and of a suitable				
	length to fix the hose reel to the wall.				
-	Hose reel components must be manufactured from the following				
	components:				
	Water seal housing and spindle: In accordance with SANS 543				
	Fire hose: In accordance with SANS 543				
	Hose run out guide: Chromium plated steel				
	Base: Mild steel				
	Complete installed firehose reel	No	1	R	R
2	PORTABLE FIRE EXTINGUISHER:				
	Install portable fire extinguishers with steel bases in the positions				
	indicated on the project drawings.				
	Portable fire extinguishers must be of the type as specified in the				
	Project Specification in accordance with SANS 1 0400 and SANS 0105.				
	CO2 Type: SANS 1567. Extinguishers must be in accordance with SANS 1910. Each fire extinguisher must be complete with a Meranti backing				
	board, mounting brackets and suitable wall anchors. Mount the fire				
	extinguishers with the handle 1,2m from finished floor level.				
	extinguishers with the handle 1,211 from mished noor level.				
2,1	4.5 kg CO2 Extinguisher complete with mounting board and				
	hanging bracket				
2.1.1	Positioned in building	No	1	R	R
	Ü				
2,2	9 kg DCP Extinguisher complete with mounting board and				
	hanging bracket				
2.2.1	Positioned in building	No	4	R	R

3,1 None  4 Signage 5 Signage to SANS standards for all fire requirements.  4.1 Supply, delivery and installation of a wall mounted single 6 Sided 150mm module Green Photo Luminescent £3 Fire 7 Standards for all fire requirements.  8 Supply, delivery and installation of a wall mounted single 9 Sided 150mm module Red Photo Luminescent £4 Fire 1 Standards for all fire requirements.  9 No 3 R R 1 R 1 Supply, delivery and installation of a wall mounted single 9 Sided 150mm module Red Photo Luminescent £4 Fire 1 Extinguisher sign without a frame at the positions shown on the drawing.  1 No 3 R R 1 R 1 Supply, delivery and installation of a wall mounted single 1 Sided 150mm module Red Photo Luminescent £4 Fire 1 Extinguisher sign without a frame at the positions shown on the drawing.  1 No 3 R R 1 R 1 Supply, delivery and installation of a wall mounted single 1 Sided 150mm module Red Photo Luminescent £13 Fire Hose Reel 1 Extinguisher sign without a frame at the positions shown on the drawing.  1 No 3 R R 1 R 1 Supply, delivery and installation of a wall mounted single 1 Sided 150mm module Red Photo Luminescent £13 Fire Hose Reel 1 Extinguisher sign without a frame at the positions shown on the drawing.  1 No 3 R R 1 R 1 Supply, delivery and installation of a wall mounted single 1 Sided 150mm module Red Photo Luminescent £13 Fire Hose Reel 1 Supply, delivery and installation of a wall mounted single 1 Sided 150mm module Red Photo Luminescent £13 Fire Hose Reel 1 Supply, delivery and installation of a wall mounted single 2 Supply, delivery and installation of a wall mounted single 3 Sided 150mm module Red Photo Luminescent £13 Fire Hose Reel 3 Supply, delivery and installation of a wall mounted single 3 Supply, delivery and installation of a wall mounted single 3 Supply, delivery and installation of a wall mounted single 3 Supply delivery and installation of a wall mounted single 3 Supply delivery and installation of a wall mounted single 3 Supply delivery and installation of a wall mounted single 4 Supply delivery an		I				
3,1 None  4 Signage Signage to SANS standrards for all fire requirements.  4,1 Supply, delivery and installation of a wall mounted single stoad 150mm module Green Photo Luminescent E3 Fire Escape sign without a frame at the positions shown on the drawing.  No 3 R R  2,2 Supply, delivery and installation of a wall mounted single sided 150mm module Red Photo Luminescent F4 Fire Estinguisher sign without a frame at the positions shown on the drawing.  No 3 R R  4,3 Supply, delivery and installation of a wall mounted single sided 150mm module Red Photo Luminescent F13 Fire Hose Reel Extinguisher sign without a frame at the positions shown on the drawing.  No 3 R R  R  R  R  R  R  R  R  R  R  R  R  R		FIRE CURRENCE ON				
4.1 Signage  4.2 Supply, delivery and installation of a wall mounted single sided 150mm module Green Photo Luminescent E 3 Fire Escape sign without a frame at the positions shown on the drawing.  4.2 Supply, delivery and installation of a wall mounted single sided 150mm module Red Photo Luminescent E 3 Fire Extinguisher sign without a frame at the positions shown on the drawing.  4.2 Supply, delivery and installation of a wall mounted single sided 150mm module Red Photo Luminescent F 3 Fire Hose Red Estinguisher sign without a frame at the positions shown on the drawing.  4.3 Supply, delivery and installation of a wall mounted single sided 150mm module Red Photo Luminescent F 13 Fire Hose Red Estinguisher sign without a frame at the positions shown on the drawing.  8 R R	3	FIRE SUPPRESSION				
4.1 Signage  4.2 Supply, delivery and installation of a wall mounted single sided 150mm module Green Photo Luminescent E 3 Fire Escape sign without a frame at the positions shown on the drawing.  4.2 Supply, delivery and installation of a wall mounted single sided 150mm module Red Photo Luminescent E 3 Fire Extinguisher sign without a frame at the positions shown on the drawing.  4.2 Supply, delivery and installation of a wall mounted single sided 150mm module Red Photo Luminescent F 3 Fire Hose Red Estinguisher sign without a frame at the positions shown on the drawing.  4.3 Supply, delivery and installation of a wall mounted single sided 150mm module Red Photo Luminescent F 13 Fire Hose Red Estinguisher sign without a frame at the positions shown on the drawing.  8 R R						
Signage to SANS standards for all fire requirements.  4.1 Supply, delivery and installation of a wall mounted single steady sign without a frame at the positions shown on the drawing.  A.2 Supply, delivery and installation of a wall mounted single slided 150mm module Green Photo Luminescent E Fire Supply, delivery and installation of a wall mounted single slided 150mm module Red Photo Luminescent F Fire Stringuisher sign without a frame at the positions shown on the drawing.  A.3 Supply, delivery and installation of a wall mounted single Supply, delivery and installation of a wall mounted single Supply, delivery and installation of a wall mounted single Supply, delivery and installation of a wall mounted single Sided 150mm module Red Photo Luminescent F 13 Fire Hose Reel Extinguisher sign without a frame at the positions shown on the drawing.  No 3 R R  R  R  R  R  R  R  R  R  R  R  R  R	3,1	None				
Signage to SANS standards for all fire requirements.  4.1 Supply, delivery and installation of a wall mounted single steady sign without a frame at the positions shown on the drawing.  A.2 Supply, delivery and installation of a wall mounted single slided 150mm module Green Photo Luminescent E Fire Supply, delivery and installation of a wall mounted single slided 150mm module Red Photo Luminescent F Fire Stringuisher sign without a frame at the positions shown on the drawing.  A.3 Supply, delivery and installation of a wall mounted single Supply, delivery and installation of a wall mounted single Supply, delivery and installation of a wall mounted single Supply, delivery and installation of a wall mounted single Sided 150mm module Red Photo Luminescent F 13 Fire Hose Reel Extinguisher sign without a frame at the positions shown on the drawing.  No 3 R R  R  R  R  R  R  R  R  R  R  R  R  R						
4.1. Supply, delivery and installation of a wall mounted single sided 150mm module Green Photo Luminescent E3 Fire Escape sign without a frame at the positions shown on the drawing.  4.2. Supply, delivery and installation of a wall mounted single sided 150mm module Red Photo Luminescent F4 Fire Extinguisher sign without a frame at the positions shown on the drawing.  No 3 R R  4.3. Supply, delivery and installation of a wall mounted single sided 150mm module Red Photo Luminescent F13 Fire Hose Reel Extinguisher sign without a frame at the positions shown on the drawing.  No 3 R R  4.3. Supply, delivery and installation of a wall mounted single sided 150mm module Red Photo Luminescent F13 Fire Hose Reel Extinguisher sign without a frame at the positions shown on the drawing.  No 3 R R	4					
sided 150mm module Green Photo Luminescent E3 Fire Escape sign without a frame at the positions shown on the drawing.  4.2 Supply, delivery and installation of a wall mounted single sided 150mm module Red Photo Luminescent F4 Fire Extinguisher sign without a frame at the positions shown on the drawing.  No 3 R R  Extraction of the drawing.  No 3 R R  4.3 Supply, delivery and installation of a wall mounted single sided 150mm module Red Photo Luminescent F13 Fire Hose Reel Extinguisher sign without a frame at the positions shown on the drawing.  No 3 R R  8  R  4.1 Supply, delivery and installation of a wall mounted single sided 150mm module Red Photo Luminescent F13 Fire Hose Reel Extinguisher sign without a frame at the positions shown on the drawing.  No 3 R R  R  1 Supply, delivery and installation of a wall mounted single sided 150mm module Red Photo Luminescent F13 Fire Hose Reel Extinguisher sign without a frame at the positions shown on the drawing.  No 3 R R  R  1 Supply, delivery and installation of a wall mounted single sided 150mm module Red Photo Luminescent F13 Fire Hose Reel Extinguisher sign without a frame at the positions shown on the drawing.  No 3 R R  R  1 Supply, delivery and installation of a wall mounted single sided 150mm module Red Photo Luminescent F13 Fire Hose Reel Extinguisher sign without a frame at the positions shown on the drawing.  No 3 R R  R  1 Supply, delivery and installation of a wall mounted single sided 150mm module Red Photo Luminescent F13 Fire Hose Reel Extinguisher sign without a frame at the positions shown on the drawing.  No 3 R R  R  1 Supply, delivery and installation of a wall mounted single sided 150mm module Red Photo Luminescent F13 Fire Hose Reel Extinguisher sign without a frame at the positions shown on the drawing.  No 3 R R  R  1 Supply delivery and installation of a wall mounted single sided 150mm module Red Photo Luminescent F13 Fire Hose Reel Extinguisher sign without a frame at the positions shown on the drawing.		Signage to SANS standrards for all fire requirements.				
sided 150mm module Green Photo Luminescent E3 Fire Escape sign without a frame at the positions shown on the drawing.  4.2 Supply, delivery and installation of a wall mounted single sided 150mm module Red Photo Luminescent F4 Fire Extinguisher sign without a frame at the positions shown on the drawing.  No 3 R R  Extraction of the drawing.  No 3 R R  4.3 Supply, delivery and installation of a wall mounted single sided 150mm module Red Photo Luminescent F13 Fire Hose Reel Extinguisher sign without a frame at the positions shown on the drawing.  No 3 R R  8  R  4.1 Supply, delivery and installation of a wall mounted single sided 150mm module Red Photo Luminescent F13 Fire Hose Reel Extinguisher sign without a frame at the positions shown on the drawing.  No 3 R R  R  1 Supply, delivery and installation of a wall mounted single sided 150mm module Red Photo Luminescent F13 Fire Hose Reel Extinguisher sign without a frame at the positions shown on the drawing.  No 3 R R  R  1 Supply, delivery and installation of a wall mounted single sided 150mm module Red Photo Luminescent F13 Fire Hose Reel Extinguisher sign without a frame at the positions shown on the drawing.  No 3 R R  R  1 Supply, delivery and installation of a wall mounted single sided 150mm module Red Photo Luminescent F13 Fire Hose Reel Extinguisher sign without a frame at the positions shown on the drawing.  No 3 R R  R  1 Supply, delivery and installation of a wall mounted single sided 150mm module Red Photo Luminescent F13 Fire Hose Reel Extinguisher sign without a frame at the positions shown on the drawing.  No 3 R R  R  1 Supply, delivery and installation of a wall mounted single sided 150mm module Red Photo Luminescent F13 Fire Hose Reel Extinguisher sign without a frame at the positions shown on the drawing.  No 3 R R  R  1 Supply delivery and installation of a wall mounted single sided 150mm module Red Photo Luminescent F13 Fire Hose Reel Extinguisher sign without a frame at the positions shown on the drawing.						
Escape sign without a frame at the positions shown on the drawing.  4.2 Supply, delivery and installation of a wall mounted single sided 150mm module Red Photo Luminescent F4 Fire  Estinguisher sign without a frame at the positions shown on the drawing.  A.3 Supply, delivery and installation of a wall mounted single sided 150mm module Red Photo Luminescent F13 Fire Hose Red Estinguisher sign without a frame at the positions shown on the drawing.  No 3 R R  R  4.3 Supply, delivery and installation of a wall mounted single sided 150mm module Red Photo Luminescent F13 Fire Hose Red Estinguisher sign without a frame at the positions shown on the drawing.  No 3 R R  R	4,1	Supply, delivery and installation of a wall mounted single				
drawing.  4,2 Supply, delivery and installation of a wall mounted single  sided 150mm module Red Photo Luminescent F4 Fire Extinguisher sign without a frame at the positions shown on the drawing.  4,3 Supply, delivery and installation of a wall mounted single sided 150mm module Red Photo Luminescent F13 Fire Hose Red   Extinguisher sign without a frame at the positions shown on the drawing.  No 3 R R  4.3 Supply, delivery and installation of a wall mounted single sided 150mm module Red Photo Luminescent F13 Fire Hose Red   Extinguisher sign without a frame at the positions shown on the drawing.  No 3 R R  R  1		sided 150mm module Green Photo Luminescent E3 Fire				
drawing.  4,2 Supply, delivery and installation of a wall mounted single  sided 150mm module Red Photo Luminescent F4 Fire Extinguisher sign without a frame at the positions shown on the drawing.  4,3 Supply, delivery and installation of a wall mounted single sided 150mm module Red Photo Luminescent F13 Fire Hose Red   Extinguisher sign without a frame at the positions shown on the drawing.  No 3 R R  4.3 Supply, delivery and installation of a wall mounted single sided 150mm module Red Photo Luminescent F13 Fire Hose Red   Extinguisher sign without a frame at the positions shown on the drawing.  No 3 R R  R  1		Escape sign without a frame at the positions shown on the				
4,2 Supply, delivery and installation of a wall mounted single sided 150mm module Red Photo Luminescent F4 Fire Extinguisher sign without a frame at the positions shown on the drawing.  4,3 Supply, delivery and installation of a wall mounted single sided 150mm module Red Photo Luminescent F13 Fire Hose Reel Extinguisher sign without a frame at the positions shown on the drawing.  No 3 R R  R  R  R  R  R  R  R  R  R  R  R  R			No	3	R	R
sided 150mm module Red Photo Luminescent F4 Fire Extinguisher sign without a frame at the positions shown on the drawing.  A,3 Supply, delivery and installation of a wall mounted single sided 150mm module Red Photo Luminescent F13 Fire Hose Reel Extinguisher sign without a frame at the positions shown on the drawing.  No 3 R R  R  Extinguisher sign without a frame at the positions shown on the drawing.  No 3 R R  R  R  R  I I I I I I I I I I I I I		<u> </u>				
sided 150mm module Red Photo Luminescent F4 Fire Extinguisher sign without a frame at the positions shown on the drawing.  A,3 Supply, delivery and installation of a wall mounted single sided 150mm module Red Photo Luminescent F13 Fire Hose Reel Extinguisher sign without a frame at the positions shown on the drawing.  No 3 R R  R  Extinguisher sign without a frame at the positions shown on the drawing.  No 3 R R  R  R  R  I I I I I I I I I I I I I	4.2	Supply, delivery and installation of a wall mounted single				
Extinguisher sign without a frame at the positions shown on the drawing.  A,3 Supply, delivery and installation of a wall mounted single sided 150mm module Red Photo Luminescent F13 Fire Hose Reel Extinguisher sign without a frame at the positions shown on the drawing.  No 3 R R  Extinguisher sign without a frame at the positions shown on the drawing.  No 3 R R  R  R  I I I I I I I I I I I I I I						
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4,3 Supply, delivery and installation of a wall mounted single sided 150mm module Red Photo Luminescent F13 Fire Hose Reel Extinguisher sign without a frame at the positions shown on the drawing.  No 3 R R  R  R  R  R  R  R  R  R  R  R  R  R			No	2	Ь	В
sided 150mm module Red Photo Luminescent F13 Fire Hose Reel         —		uic arawing.	INU	3	<del>                                     </del>	"
sided 150mm module Red Photo Luminescent F13 Fire Hose Reel         —	4.2	Supply delivery and installation of a well massated size le	+		1	1
Extinguisher sign without a frame at the positions shown on the drawing.  No 3 R R  R  R  R  R  R  R  R  R  R  R  R  R	4,3				1	<del>                                     </del>
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TOTAL BLOCK 8 FIRE CARRIED FORWARD TO SUMMARY		the drawing.	No	3	R	R
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- 3 Quantities indicated here are to be verified by the contractor against the project drawings. All discrepancies shall be brought
- 4 No variation in rates shall be due based on variation in quantities, rate of exchange or escalation.
- 5 Errors and omissions of equipment or material required to execute the project solution specified or indicated on the
- 6 All works required to execute the scope of works in accordance with the project program and quality requirements are
- Rates provided shall include for fixing, hangers, fittings, transformations, sealant and all other items required to deliver a
- 8 The bill of quantities shall not be used as the basis for material order.
- 9 The values here shall be entered in South African Rands and exclusive of VAT.

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	ABOVE THE GROUND EQUIPMENT - BLOCK 9 TV ROOMS				
	FIRE EQUIPMENT				
1	PORTABLE FIRE EXTINGUISHER:				
	Install portable fire extinguishers with steel bases in the positions				
	indicated on the project drawings.				
	Portable fire extinguishers must be of the type as specified in the				
	Project Specification in accordance with SANS 1 0400 and SANS				
	0105. CO2 Type: SANS 1567. Extinguishers must be in accordance				
	with SANS 1910. Each fire extinguisher must be complete with a				
	Meranti backing board, mounting brackets and suitable wall				
	anchors. Mount the fire extinguishers with the handle 1,2m from				
	finished floor level.				
2,1	9 kg DCP Extinguisher complete with mounting board and				1
,	hanging bracket				
2.1.1	Positioned in classrooms	No	2	R	R
3	Signage				1
	Signage to SANS standrards for all fire requirements.				
3,1	Supply, delivery and installation of a wall mounted single				
	sided 150mm module Green Photo Luminescent E3 Fire				
	Escape sign without a frame at the positions shown on the				
	drawing.	No	4	R	R
3,2	Supply, delivery and installation of a wall mounted single				
	sided 150mm module Red Photo Luminescent F13 Fire				
	Extinguisher sign without a frame at the positions shown on				
	the drawing.	No	2	R	R
TOTAL BLC	OCK 9 FIRE CARRIED FORWARD TO SUMMARY				R

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- 2 All works billed here shall include for the full scope of service specified including but not limited to supply, delivery, installation,
- 3 Quantities indicated here are to be verified by the contractor against the project drawings. All discrepancies shall be brought to
- 4 No variation in rates shall be due based on variation in quantities, rate of exchange or escalation.
- 5 Errors and omissions of equipment or material required to execute the project solution specified or indicated on the drawings
- 6 All works required to execute the scope of works in accordance with the project program and quality requirements are deemed
- 7 Rates provided shall include for fixing, hangers, fittings, transformations, sealant and all other items required to deliver a
- 8 The bill of quantities shall not be used as the basis for material order.
- 9 The values here shall be entered in South African Rands and exclusive of VAT.

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	ABOVE THE GROUND EQUIPMENT - BLOCK 10 TYPE 1A BOYS				
1	FIRE EQUIPMENT				
	THE EQUITIES				
	FIRE HOSE REEL:				
	Install non-swinging, rotary pattern type fire hose reels in the positions				
	as indicated on the project drawings.				
	The fire hose reels must be complete with 30 m long, 20 mm diameter				
	hose, hose run-out guide, clamps, nozzle bracket, fixing brackets and				
	bolts, nozzle-cock and 25 mm stop valve all to conform to SANS 543. Fit				
	rotary type cocks to the hose reels.				
	Provide hose reel bases with four bolt holes spaced and orientated as				
	per SANS 543. Use bolts of at least 10 mm diameter and of a suitable				
	•				
	length to fix the hose reel to the wall.				
	Hose reel components must be manufactured from the following				
	components:				
	Water seal housing and spindle: In accordance with SANS 543				
	Fire hose: In accordance with SANS 543				
	Hose run out guide: Chromium plated steel				
	Base: Mild steel				
	Complete installed firehose reel	No	1	R	R
2	PORTABLE FIRE EXTINGUISHER:				
	Install portable fire extinguishers with steel bases in the positions				
	indicated on the project drawings.				
	Portable fire extinguishers must be of the type as specified in the				
	Project Specification in accordance with SANS 1 0400 and SANS 0105.				
	CO2 Type: SANS 1567. Extinguishers must be in accordance with SANS				
	1910. Each fire extinguisher must be complete with a Meranti backing				
	board, mounting brackets and suitable wall anchors. Mount the fire				
	extinguishers with the handle 1,2m from finished floor level.				
2,1	4.5 kg CO2 Extinguisher complete with mounting board and				
·	hanging bracket				
2.1.1	Positioned in building	No	2	R	R
2,2	9 kg DCP Extinguisher complete with mounting board and				
	hanging bracket				
2.2.1	Positioned in building	No	2	R	R
					1

3	FIRE SUPPRESSION				
3,1	None				
4	<u>Signage</u>				
	Signage to SANS standrards for all fire requirements.				
4,1	Supply, delivery and installation of a wall mounted single sided 150mm module Green Photo Luminescent E3 Fire				
	Escape sign without a frame at the positions shown on the				
	drawing.	No	4	R	R
	arawing.	110			
4,2	Supply, delivery and installation of a wall mounted single				
,	sided 150mm module Red Photo Luminescent F4 Fire				
	Extinguisher sign without a frame at the positions shown on				
	the drawing.	No	4	R	R
4,3	Supply, delivery and installation of a wall mounted single				
	sided 150mm module Red Photo Luminescent F13 Fire Hose Reel				
	Extinguisher sign without a frame at the positions shown on	NI -	4	<u> </u>	<u> </u>
	the drawing.	No	1	R	R
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TOTALBL	OCK 10 BOYS FIRE CARRIED FORWARD TO SUMMARY				R

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- 1 This Bill of Quantities forms part of the contract documents and is to be read in conjunction therewith.
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- 3 Quantities indicated here are to be verified by the contractor against the project drawings. All discrepancies shall be brought to
- 4 No variation in rates shall be due based on variation in quantities, rate of exchange or escalation.
- 5 Errors and omissions of equipment or material required to execute the project solution specified or indicated on the drawings
- 6 All works required to execute the scope of works in accordance with the project program and quality requirements are deemed
- 7 Rates provided shall include for fixing, hangers, fittings, transformations, sealant and all other items required to deliver a
  - The bill of quantities shall not be used as the basis for material order.
  - The values here shall be entered in South African Rands and exclusive of VAT.

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	ABOVE THE GROUND EQUIPMENT - BLOCK 11 TYPE 1A BOYS				
1	FIRE EQUIPMENT				
-	THE EQUI MENT				
	FIRE HOSE REEL:				
	Install non-swinging, rotary pattern type fire hose reels in the positions				
	as indicated on the project drawings.				
	The fire hose reels must be complete with 30 m long, 20 mm diameter				
	hose, hose run-out guide, clamps, nozzle bracket, fixing brackets and				
	bolts, nozzle-cock and 25 mm stop valve all to conform to SANS 543. Fit				
	rotary type cocks to the hose reels.				
	Provide hose reel bases with four bolt holes spaced and orientated as				
	per SANS 543. Use bolts of at least 10 mm diameter and of a suitable				
	length to fix the hose reel to the wall.				
	Hose reel components must be manufactured from the following				
	components:				
	Water seal housing and spindle: In accordance with SANS 543				
	Fire hose: In accordance with SANS 543				
	Hose run out guide: Chromium plated steel				
	Base: Mild steel				
	Complete installed firehose reel	No	1	R	R
2	PORTABLE FIRE EXTINGUISHER:				
	Install portable fire extinguishers with steel bases in the positions				
	indicated on the project drawings.				
	Portable fire extinguishers must be of the type as specified in the				
	Project Specification in accordance with SANS 1 0400 and SANS 0105.				
	CO2 Type: SANS 1567. Extinguishers must be in accordance with SANS				
	1910. Each fire extinguisher must be complete with a Meranti backing				
	board, mounting brackets and suitable wall anchors. Mount the fire				
	extinguishers with the handle 1,2m from finished floor level.				
	, , , , , , , , , , , , , , , , , , , ,				
2,1	4.5 kg CO2 Extinguisher complete with mounting board and				
2,1					
	hanging bracket				
211	Positioned in building	No	2	В	В
2.1.1	rositionea in building	No		R	R
2.2	0 kg DCD Extinguisher complete with mounting board and				
2,2	9 kg DCP Extinguisher complete with mounting board and				
	hanging bracket				
224	Desitioned in building	NI or	2	В	В
2.2.1	Positioned in building	No	2	R	R
	<del>                                     </del>				

3	FIRE SUPPRESSION				
3,1	None				
4	<u>Signage</u>				
	Signage to SANS standrards for all fire requirements.				
4,1	Supply, delivery and installation of a wall mounted single sided 150mm module Green Photo Luminescent E3 Fire				
	Escape sign without a frame at the positions shown on the				
	drawing.	No	4	R	R
	didwing.	140			
4,2	Supply, delivery and installation of a wall mounted single				
,	sided 150mm module Red Photo Luminescent F4 Fire				
	Extinguisher sign without a frame at the positions shown on				
	the drawing.	No	4	R	R
4,3	Supply, delivery and installation of a wall mounted single				
	sided 150mm module Red Photo Luminescent F13 Fire Hose Reel				
	Extinguisher sign without a frame at the positions shown on	NI -	4	<u> </u>	<u> </u>
	the drawing.	No	1	R	R
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TOTALBL	OCK 11 DOTS FINE CANNIED FORWARD TO SUIVIIVIARY				R

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- 3 Quantities indicated here are to be verified by the contractor against the project drawings. All discrepancies shall be brought to
- 4 No variation in rates shall be due based on variation in quantities, rate of exchange or escalation.
- 5 Errors and omissions of equipment or material required to execute the project solution specified or indicated on the drawings
- 6 All works required to execute the scope of works in accordance with the project program and quality requirements are deemed
- 7 Rates provided shall include for fixing, hangers, fittings, transformations, sealant and all other items required to deliver a
- 8 The bill of quantities shall not be used as the basis for material order.
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ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	ABOVE THE GROUND EQUIPMENT - BLOCK 12 TYPE 1A BOYS				
1	FIRE EQUIPMENT				
	FIRE HOSE REEL:				
	Install non-swinging, rotary pattern type fire hose reels in the positions				
	as indicated on the project drawings.				
	The fire hose reels must be complete with 30 m long, 20 mm diameter				
	hose, hose run-out guide, clamps, nozzle bracket, fixing brackets and				
	bolts, nozzle-cock and 25 mm stop valve all to conform to SANS 543. Fit				
	rotary type cocks to the hose reels.				
	Provide hose reel bases with four bolt holes spaced and orientated as				
	per SANS 543. Use bolts of at least 10 mm diameter and of a suitable				
	length to fix the hose reel to the wall.				
	Hose reel components must be manufactured from the following		<del>                                     </del>		
	components:				
	Water seal housing and spindle: In accordance with SANS 543				
	Fire hose: In accordance with SANS 543				
	Hose run out guide: Chromium plated steel				
	Base: Mild steel				
	Complete installed firehose reel	No	1	R	R
2	PORTABLE FIRE EXTINGUISHER:				
	Install portable fire extinguishers with steel bases in the positions				
	indicated on the project drawings.				
	Portable fire extinguishers must be of the type as specified in the				
	Project Specification in accordance with SANS 1 0400 and SANS 0105.				
	CO2 Type: SANS 1567. Extinguishers must be in accordance with SANS				
	1910. Each fire extinguisher must be complete with a Meranti backing				
	board, mounting brackets and suitable wall anchors. Mount the fire				
	extinguishers with the handle 1,2m from finished floor level.				
2,1	4.5 kg CO2 Extinguisher complete with mounting board and				
,	hanging bracket				
2.1.1	Positioned in building	No	2	R	R
2,2	9 kg DCP Extinguisher complete with mounting board and				
	hanging bracket				
2.2.1	Positioned in building	No	2	R	R

3	FIRE SUPPRESSION				
3,1	None				
4	<u>Signage</u>				
	Signage to SANS standrards for all fire requirements.				
4,1	Supply, delivery and installation of a wall mounted single sided 150mm module Green Photo Luminescent E3 Fire				
	Escape sign without a frame at the positions shown on the				
	drawing.	No	4	R	R
	arawing.	110			
4,2	Supply, delivery and installation of a wall mounted single				
,	sided 150mm module Red Photo Luminescent F4 Fire				
	Extinguisher sign without a frame at the positions shown on				
	the drawing.	No	4	R	R
4,3	Supply, delivery and installation of a wall mounted single				
	sided 150mm module Red Photo Luminescent F13 Fire Hose Reel				
	Extinguisher sign without a frame at the positions shown on	NI -	4	R	R
	the drawing.	No	1	K	К
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TOTAL BL	OCK 12 BOYS FIRE CARRIED FORWARD TO SUMMARY	1			D
TOTALBL	OCK 12 DOTS FIRE CARRIED FORWARD TO SUIVIIVIARY				R

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- 3 Quantities indicated here are to be verified by the contractor against the project drawings. All discrepancies shall be brought to the
- 4 No variation in rates shall be due based on variation in quantities, rate of exchange or escalation.
- 5 Errors and omissions of equipment or material required to execute the project solution specified or indicated on the drawings shall be
- 6 All works required to execute the scope of works in accordance with the project program and quality requirements are deemed
- 7 Rates provided shall include for fixing, hangers, fittings, transformations, sealant and all other items required to deliver a functional
- 8 The bill of quantities shall not be used as the basis for material order.
- 9 The values here shall be entered in South African Rands and exclusive of VAT.

RE HOSE REEL:  stall non-swinging, rotary pattern type fire hose reels in the positions as dicated on the project drawings.  ne fire hose reels must be complete with 30 m long, 20 mm diameter ose, hose run-out guide, clamps, nozzle bracket, fixing brackets and bolts, ozzle-cock and 25 mm stop valve all to conform to SANS 543. Fit rotary pe cocks to the hose reels.  Provide hose reel bases with four bolt holes spaced and orientated as per ANS 543. Use bolts of at least 10 mm diameter and of a suitable length to a the hose reel to the wall.  Descriptions as the following supponents:  Stater seal housing and spindle: In accordance with SANS 543  The hose: In accordance with SANS 543  The hose: In accordance with SANS 543  The hose: Mild steel				
RE HOSE REEL:  stall non-swinging, rotary pattern type fire hose reels in the positions as dicated on the project drawings.  ne fire hose reels must be complete with 30 m long, 20 mm diameter ose, hose run-out guide, clamps, nozzle bracket, fixing brackets and bolts, ozzle-cock and 25 mm stop valve all to conform to SANS 543. Fit rotary pe cocks to the hose reels.  Tovide hose reel bases with four bolt holes spaced and orientated as per ANS 543. Use bolts of at least 10 mm diameter and of a suitable length to a the hose reel to the wall.  To be reel components must be manufactured from the following omponents:  Tater seal housing and spindle: In accordance with SANS 543  The hose: In accordance with SANS 543  The hose: In accordance with SANS 543  The hose: In accordance with SANS 543  The hose: In accordance with SANS 543				
RE HOSE REEL: stall non-swinging, rotary pattern type fire hose reels in the positions as dicated on the project drawings. he fire hose reels must be complete with 30 m long, 20 mm diameter ose, hose run-out guide, clamps, nozzle bracket, fixing brackets and bolts, ozzle-cock and 25 mm stop valve all to conform to SANS 543. Fit rotary pe cocks to the hose reels. Tovide hose reel bases with four bolt holes spaced and orientated as per ANS 543. Use bolts of at least 10 mm diameter and of a suitable length to at the hose reel to the wall. To be reel components must be manufactured from the following emponents: That is a seal housing and spindle: In accordance with SANS 543 the hose: In accordance with SANS 543 the hose: In accordance with SANS 543 the sear un out guide: Chromium plated steel				
stall non-swinging, rotary pattern type fire hose reels in the positions as dicated on the project drawings.  The fire hose reels must be complete with 30 m long, 20 mm diameter cose, hose run-out guide, clamps, nozzle bracket, fixing brackets and bolts, pozzle-cock and 25 mm stop valve all to conform to SANS 543. Fit rotary pe cocks to the hose reels.  The rotary per cocks to the hose reels with four bolt holes spaced and orientated as per than S43. Use bolts of at least 10 mm diameter and of a suitable length to at the hose reel to the wall.  The rotary per cocks to the hose reel bases with four bolt holes spaced and orientated as per than S43. Use bolts of at least 10 mm diameter and of a suitable length to at the hose reel to the wall.  The rotary per cocks to the hose reels bases with four bolt holes spaced and orientated as per than S43. Use bolts of at least 10 mm diameter and of a suitable length to at the hose reel to the wall.  The rotary per cocks to the hose reels bases with four bolt holes spaced and orientated as per than S43. Use bolts of at least 10 mm diameter and of a suitable length to at the hose reel to the wall.  The rotary per cocks to the protect of				
stall non-swinging, rotary pattern type fire hose reels in the positions as dicated on the project drawings.  The fire hose reels must be complete with 30 m long, 20 mm diameter cose, hose run-out guide, clamps, nozzle bracket, fixing brackets and bolts, pozzle-cock and 25 mm stop valve all to conform to SANS 543. Fit rotary pe cocks to the hose reels.  The rotary per cocks to the hose reels with four bolt holes spaced and orientated as per than S43. Use bolts of at least 10 mm diameter and of a suitable length to at the hose reel to the wall.  The rotary per cocks to the hose reel bases with four bolt holes spaced and orientated as per than S43. Use bolts of at least 10 mm diameter and of a suitable length to at the hose reel to the wall.  The rotary per cocks to the hose reels bases with four bolt holes spaced and orientated as per than S43. Use bolts of at least 10 mm diameter and of a suitable length to at the hose reel to the wall.  The rotary per cocks to the hose reels bases with four bolt holes spaced and orientated as per than S43. Use bolts of at least 10 mm diameter and of a suitable length to at the hose reel to the wall.  The rotary per cocks to the protect of				
dicated on the project drawings.  The fire hose reels must be complete with 30 m long, 20 mm diameter cose, hose run-out guide, clamps, nozzle bracket, fixing brackets and bolts, pozzle-cock and 25 mm stop valve all to conform to SANS 543. Fit rotary pe cocks to the hose reels.  To vide hose reel bases with four bolt holes spaced and orientated as per cocks and use bolts of at least 10 mm diameter and of a suitable length to a the hose reel to the wall.  To be reel components must be manufactured from the following components:  The following and spindle: In accordance with SANS 543  The hose: In accordance with SANS 543  The hose: In accordance with SANS 543  The specific properties with SANS 543  The specific properties with SANS 543  The specific properties with SANS 543  The specific properties with SANS 543  The specific properties with SANS 543  The specific properties with SANS 543  The specific properties with SANS 543  The specific properties with SANS 543  The specific properties with SANS 543  The specific properties with SANS 543  The specific properties with SANS 543  The specific properties with SANS 543  The specific properties with SANS 543  The specific properties with SANS 543  The specific properties with SANS 543  The specific properties with SANS 543  The specific properties with SANS 543  The specific properties with SANS 543				
ne fire hose reels must be complete with 30 m long, 20 mm diameter ose, hose run-out guide, clamps, nozzle bracket, fixing brackets and bolts, ozzle-cock and 25 mm stop valve all to conform to SANS 543. Fit rotary pe cocks to the hose reels.  Tovide hose reel bases with four bolt holes spaced and orientated as per ANS 543. Use bolts of at least 10 mm diameter and of a suitable length to a the hose reel to the wall.  Tose reel components must be manufactured from the following emponents:  Tater seal housing and spindle: In accordance with SANS 543  The hose: In accordance with SANS 543  The sear out guide: Chromium plated steel				
ose, hose run-out guide, clamps, nozzle bracket, fixing brackets and bolts, ozzle-cock and 25 mm stop valve all to conform to SANS 543. Fit rotary pe cocks to the hose reels.  Tovide hose reel bases with four bolt holes spaced and orientated as per and S 543. Use bolts of at least 10 mm diameter and of a suitable length to a the hose reel to the wall.  Tose reel components must be manufactured from the following emponents:  Tater seal housing and spindle: In accordance with SANS 543  The hose: In accordance with SANS 543  The sear run out guide: Chromium plated steel				
pozzle-cock and 25 mm stop valve all to conform to SANS 543. Fit rotary pe cocks to the hose reels.  Provide hose reel bases with four bolt holes spaced and orientated as per ANS 543. Use bolts of at least 10 mm diameter and of a suitable length to a the hose reel to the wall.  Pose reel components must be manufactured from the following emponents:  Pater seal housing and spindle: In accordance with SANS 543  Pre hose: In accordance with SANS 543  Dose run out guide: Chromium plated steel				
pe cocks to the hose reels.  ovide hose reel bases with four bolt holes spaced and orientated as per ANS 543. Use bolts of at least 10 mm diameter and of a suitable length to a the hose reel to the wall.  ose reel components must be manufactured from the following omponents:  (ater seal housing and spindle: In accordance with SANS 543 re hose: In accordance with SANS 543 ose run out guide: Chromium plated steel				
re hose: In accordance with SANS 543  re hose: In accordance with SANS 543  re run out guide: Chromium plated steel				
ANS 543. Use bolts of at least 10 mm diameter and of a suitable length to a the hose reel to the wall.  Ose reel components must be manufactured from the following emponents:  Vater seal housing and spindle: In accordance with SANS 543  Ose run out guide: Chromium plated steel				
the hose reel to the wall.  ose reel components must be manufactured from the following omponents:  fater seal housing and spindle: In accordance with SANS 543  ore hose: In accordance with SANS 543  ose run out guide: Chromium plated steel				
ose reel components must be manufactured from the following omponents:  Vater seal housing and spindle: In accordance with SANS 543  re hose: In accordance with SANS 543  ose run out guide: Chromium plated steel				
omponents: Vater seal housing and spindle: In accordance with SANS 543 re hose: In accordance with SANS 543 ose run out guide: Chromium plated steel				
rater seal housing and spindle: In accordance with SANS 543 re hose: In accordance with SANS 543 ose run out guide: Chromium plated steel				
re hose: In accordance with SANS 543 ose run out guide: Chromium plated steel				<u> </u>
ose run out guide: Chromium plated steel				
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ase: Mild steel				1
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omplete installed firehose reel	No	1	R	R
ODTADI E FIDE EVTINGUIGHED.				+
ORTABLE FIRE EXTINGUISHER: stall portable fire extinguishers with steel bases in the positions indicated				+
n the project drawings.				
ortable fire extinguishers must be of the type as specified in the Project				+
pecification in accordance with SANS 1 0400 and SANS 0105. CO2 Type:				
ANS 1567. Extinguishers must be in accordance with SANS 1910. Each fire				
ctinguisher must be complete with a Meranti backing board, mounting				
rackets and suitable wall anchors. Mount the fire extinguishers with the				
andle 1,2m from finished floor level.				
andle 1,2111 from fillished floor level.				
kg DCP Extinguisher complete with mounting board and				
anging bracket	No	2	R	R
gnage				+
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gnage to SANS standrards for all fire requirements.				†
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gnage to SANS standrards for all fire requirements.  upply, delivery and installation of a wall mounted single				1
upply, delivery and installation of a wall mounted single				
an gr	nage to SANS standrards for all fire requirements.	nage to SANS standrards for all fire requirements.	ging bracket  No 2  nage nage to SANS standrards for all fire requirements.  ply, delivery and installation of a wall mounted single	nage nage to SANS standrards for all fire requirements.  ply, delivery and installation of a wall mounted single ad 150mm module Red Photo Luminescent F13 Fire Hose and

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TOTAL	BLOCK 13 FIRE CARRIED FORWARD TO SUMMARY		R

- 1 This Bill of Quantities forms part of the contract documents and is to be read in conjunction therewith.
- 2 All works billed here shall include for the full scope of service specified including but not limited to supply, delivery, installation,
- 3 Quantities indicated here are to be verified by the contractor against the project drawings. All discrepancies shall be brought to the
- 4 No variation in rates shall be due based on variation in quantities, rate of exchange or escalation.
- 5 Errors and omissions of equipment or material required to execute the project solution specified or indicated on the drawings shall
- 6 All works required to execute the scope of works in accordance with the project program and quality requirements are deemed
- 7 Rates provided shall include for fixing, hangers, fittings, transformations, sealant and all other items required to deliver a functional
- 8 The bill of quantities shall not be used as the basis for material order.
- 9 The values here shall be entered in South African Rands and exclusive of VAT.

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
NO	ABOVE THE GROUND EQUIPMENT - BLOCK 14 HOUSE MASTER				
	ADOVE THE GROUND EQUITMENT - DEOCK 14 HOUSE MASTER				
1	FIRE EQUIPMENT				
	THE EQUITMENT				
	FIRE HOSE REEL:				
	Install non-swinging, rotary pattern type fire hose reels in the positions as				
	indicated on the project drawings.				
	The fire hose reels must be complete with 30 m long, 20 mm diameter				
	hose, hose run-out guide, clamps, nozzle bracket, fixing brackets and bolts,				
	nozzle-cock and 25 mm stop valve all to conform to SANS 543. Fit rotary				
	type cocks to the hose reels.				
	Provide hose reel bases with four bolt holes spaced and orientated as per				
	SANS 543. Use bolts of at least 10 mm diameter and of a suitable length to				
	fix the hose reel to the wall.				
	Hose reel components must be manufactured from the following				
	components:				
	Water seal housing and spindle: In accordance with SANS 543				
	Fire hose: In accordance with SANS 543				
	Hose run out guide: Chromium plated steel				
	Base: Mild steel				
	Complete installed firehose reel	No	1	R	R
2	PORTABLE FIRE EXTINGUISHER:				
	Install portable fire extinguishers with steel bases in the positions				
	indicated on the project drawings.				
	Portable fire extinguishers must be of the type as specified in the Project				
	Specification in accordance with SANS 1 0400 and SANS 0105. CO2 Type:				
	SANS 1567. Extinguishers must be in accordance with SANS 1910. Each fire				
	extinguisher must be complete with a Meranti backing board, mounting				
	brackets and suitable wall anchors. Mount the fire extinguishers with the				
	handle 1,2m from finished floor level.				
	,				
2,1	9 kg DCP Extinguisher complete with mounting board and				
۷,1	hanging bracket				
	manbing wideher				
2.1.1	Positioned in building	No	3	R	R
	- sansansa ni sanang	110			1

3	<u>Signage</u>		
	Signage to SANS standrards for all fire requirements.		
3,1	Supply, delivery and installation of a wall mounted single		
	sided 150mm module Red Photo Luminescent F13 Fire		
	Extinguisher sign without a frame at the positions shown on		

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- 3 Quantities indicated here are to be verified by the contractor against the project drawings. All discrepancies shall be brought to
- 4 No variation in rates shall be due based on variation in quantities, rate of exchange or escalation.
- 5 Errors and omissions of equipment or material required to execute the project solution specified or indicated on the drawings
- 6 All works required to execute the scope of works in accordance with the project program and quality requirements are deemed
- 7 Rates provided shall include for fixing, hangers, fittings, transformations, sealant and all other items required to deliver a
- 8 The bill of quantities shall not be used as the basis for material order.
- 9 The values here shall be entered in South African Rands and exclusive of VAT.

ITEM NO	DESCRIPTION	UNIT	QUANTIT	RATE	AMOUNT
	ABOVE THE GROUND EQUIPMENT - BLOCK 15 HOSTEL ADMIN				
1	FIRE EQUIPMENT				
	FIRE HOSE REEL:				
	Install non-swinging, rotary pattern type fire hose reels in the positions				
	as indicated on the project drawings.				
	The fire hose reels must be complete with 30 m long, 20 mm diameter				
	hose, hose run-out guide, clamps, nozzle bracket, fixing brackets and				
	bolts, nozzle-cock and 25 mm stop valve all to conform to SANS 543. Fit				
	rotary type cocks to the hose reels.				
	Provide hose reel bases with four bolt holes spaced and orientated as				
	per SANS 543. Use bolts of at least 10 mm diameter and of a suitable				
	length to fix the hose reel to the wall.				
	Hose reel components must be manufactured from the following				
	components:				
	Water seal housing and spindle: In accordance with SANS 543				
	Fire hose: In accordance with SANS 543				
	Hose run out guide: Chromium plated steel				
	Base: Mild steel				
	Complete installed firehose reel	No	1	R	R
2	DODTADI E FIDE EVTINGUED.				
2	PORTABLE FIRE EXTINGUISHER:				
	Install portable fire extinguishers with steel bases in the positions				
	indicated on the project drawings.  Portable fire extinguishers must be of the type as specified in the		1		+
	Project Specification in accordance with SANS 1 0400 and SANS 0105.				
	CO2 Type: SANS 1567. Extinguishers must be in accordance with SANS				
	1910. Each fire extinguisher must be complete with a Meranti backing				
	board, mounting brackets and suitable wall anchors. Mount the fire				
	extinguishers with the handle 1,2m from finished floor level.				
2,1	4.5 kg CO2 Extinguisher complete with mounting board and		1		
۷,۱	hanging bracket				
	manging widence		<del>                                     </del>		
2.1.1	Positioned in building	No	1	R	R
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	9 kg CO2 Extinguisher complete with mounting board and				
	hanging bracket		1		
	Positioned in building	No	2	R	R

2,2	9 kg DCP Extinguisher complete with mounting board and				
	hanging bracket	+			
	nunging product	1			
2.2.1	Positioned in building	No	5	R	R
2.2.1	1 ositioned in building	110		, , , , , , , , , , , , , , , , , , ,	
3	FIRE SUPPRESSION				
	TIKE SOFF RESSION				
3,1	Supply FM200 Automatic Fire Suppression System in Server Room	+			
3,1	Supply 1 W200 Automatic the Supplession System in Server Room	+			
	Complete installed, tested and commissioned fire system	No	1	R	R
	Complete installed, tested and commissioned file system	NO	<u> </u>	N .	N .
4	<u>Signage</u>				
-	Signage to SANS standrards for all fire requirements.	+			
	Signage to SANS standiards for all file requirements.	+			
4.1	Comply delivery and installation of a well may not a single	-			
4,1	Supply, delivery and installation of a wall mounted single sided 150mm module Green Photo Luminescent E3 Fire				
	Escape sign without a frame at the positions shown on the	<u> </u>			_
	drawing.	No	5	R	R
		_			
4,2	Supply, delivery and installation of a wall mounted single	_			
	sided 150mm module Red Photo Luminescent F4 Fire				
	Extinguisher sign without a frame at the positions shown on				
	the drawing.	No	4	R	R
4,3	Supply, delivery and installation of a wall mounted single				
	sided 150mm module Red Photo Luminescent F13 Fire Hose Reel				
	Extinguisher sign without a frame at the positions shown on				
	the drawing.	No	1	R	R
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TOTAL BL	OCK 15 FIRE CARRIED FORWARD TO SUMMARY				R

- 1 This Bill of Quantities forms part of the contract documents and is to be read in conjunction therewith.
- 2 All works billed here shall include for the full scope of service specified including but not limited to supply, delivery, installation,
- 3 Quantities indicated here are to be verified by the contractor against the project drawings. All discrepancies shall be brought to
- 4 No variation in rates shall be due based on variation in quantities, rate of exchange or escalation.
- 5 Errors and omissions of equipment or material required to execute the project solution specified or indicated on the drawings shall
- 6 All works required to execute the scope of works in accordance with the project program and quality requirements are deemed
- 7 Rates provided shall include for fixing, hangers, fittings, transformations, sealant and all other items required to deliver a
- 8 The bill of quantities shall not be used as the basis for material order.
- 9 The values here shall be entered in South African Rands and exclusive of VAT.

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	ABOVE THE GROUND EQUIPMENT - BLOCK 16 STAFF HOUSE				
	·				
1	FIRE EQUIPMENT				
	FIRE HOSE REEL:				
	Install non-swinging, rotary pattern type fire hose reels in the positions as				
	indicated on the project drawings.				
	The fire hose reels must be complete with 30 m long, 20 mm diameter				
	hose, hose run-out guide, clamps, nozzle bracket, fixing brackets and				
	bolts, nozzle-cock and 25 mm stop valve all to conform to SANS 543. Fit				
	rotary type cocks to the hose reels.				
	Provide hose reel bases with four bolt holes spaced and orientated as per				
	SANS 543. Use bolts of at least 10 mm diameter and of a suitable length				
	to fix the hose reel to the wall.				
	Hose reel components must be manufactured from the following				
	components:				
	Water seal housing and spindle: In accordance with SANS 543				
	Fire hose: In accordance with SANS 543				
	Hose run out guide: Chromium plated steel				
	Base: Mild steel				
	Complete installed firehose reel	No	1	R	R
2	PORTABLE FIRE EXTINGUISHER:				
	Install portable fire extinguishers with steel bases in the positions				
	indicated on the project drawings.				
	Portable fire extinguishers must be of the type as specified in the Project				
	Specification in accordance with SANS 1 0400 and SANS 0105. CO2 Type:				
	SANS 1567. Extinguishers must be in accordance with SANS 1910. Each				
	fire extinguisher must be complete with a Meranti backing board,				
	mounting brackets and suitable wall anchors. Mount the fire				
	extinguishers with the handle 1,2m from finished floor level.				
2.1	O be DCD Subject to be a complete with a complete of the control o				
2,1	9 kg DCP Extinguisher complete with mounting board and				
	hanging bracket		<del> </del>		
2.1.1	Positioned in building	No	2	R	R
۲.1.1	r ositioned in building	140		"	<u>, , , , , , , , , , , , , , , , , , , </u>
2,2	4,5 kg DCP Extinguisher complete with mounting board and		<u> </u>		
,-	hanging bracket				
2.2.1	Positioned in building	No	2	R	R

	T					
3	<u>Signage</u>	+ +		1		
	Signage to SANS standrards for all fire requirements.					
	Signage to SANS standards for all the requirements.					
3,1	Supply, delivery and installation of a wall mounted single					
3,1	sided 150mm module Red Photo Luminescent F13 Fire					
	Extinguisher sign without a frame at the positions shown on					
	the drawing.	No	2	R	R	
	the drawing.	NO		K	K	
3,2	Supply, delivery and installation of a wall mounted single					
3,2	sided 150mm module Red Photo Luminescent F13 Fire Hose Reel					
	Extinguisher sign without a frame at the positions shown on					
	the drawing.	No	1	R	R	
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TOTALBL	OCK 16 FIRE CARRIED FORWARD TO SUMMARY				D	
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- 4 No variation in rates shall be due based on variation in quantities, rate of exchange or escalation.
- 5 Errors and omissions of equipment or material required to execute the project solution specified or indicated on the drawings shall
- 6 All works required to execute the scope of works in accordance with the project program and quality requirements are deemed
- 7 Rates provided shall include for fixing, hangers, fittings, transformations, sealant and all other items required to deliver a
- 8 The bill of quantities shall not be used as the basis for material order.
- 9 The values here shall be entered in South African Rands and exclusive of VAT.

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	ABOVE THE GROUND EQUIPMENT - BLOCK 17 STAFF HOUSE				
1	FIRE EQUIPMENT				
	FIRE HOSE REEL:				
	Install non-swinging, rotary pattern type fire hose reels in the positions as				
	indicated on the project drawings.				
	The fire hose reels must be complete with 30 m long, 20 mm diameter				
	hose, hose run-out guide, clamps, nozzle bracket, fixing brackets and				
	bolts, nozzle-cock and 25 mm stop valve all to conform to SANS 543. Fit				
	rotary type cocks to the hose reels.				
	Provide hose reel bases with four bolt holes spaced and orientated as per				
	SANS 543. Use bolts of at least 10 mm diameter and of a suitable length				
	to fix the hose reel to the wall.				
	Hose reel components must be manufactured from the following				
	components:				
	Water seal housing and spindle: In accordance with SANS 543				
	Fire hose: In accordance with SANS 543				
	Hose run out guide: Chromium plated steel				
	Base: Mild steel				
	Complete installed firehose reel	No	1	R	R
2	PORTABLE FIRE EXTINGUISHER:				
	Install portable fire extinguishers with steel bases in the positions				
	indicated on the project drawings.				
	Portable fire extinguishers must be of the type as specified in the Project				
	Specification in accordance with SANS 1 0400 and SANS 0105. CO2 Type:				
	SANS 1567. Extinguishers must be in accordance with SANS 1910. Each				
	fire extinguisher must be complete with a Meranti backing board,				
	mounting brackets and suitable wall anchors. Mount the fire				
	extinguishers with the handle 1,2m from finished floor level.				
2,1	9 kg DCP Extinguisher complete with mounting board and				
<b>د</b> , ±	hanging bracket				
2.1.1	Positioned in building	No	2	R	R
2,2	4,5 kg DCP Extinguisher complete with mounting board and				
	hanging bracket				
2.2.1	Positioned in building	No	2	R	R

3	Signage				
	Signage to SANS standrards for all fire requirements.				
	-00				
3,1	Supply, delivery and installation of a wall mounted single				
-,	sided 150mm module Red Photo Luminescent F13 Fire				
	Extinguisher sign without a frame at the positions shown on				
	the drawing.	No	2	R	R
3,2	Supply, delivery and installation of a wall mounted single				
	sided 150mm module Red Photo Luminescent F13 Fire Hose Reel				
	Extinguisher sign without a frame at the positions shown on				
	the drawing.	No	1	R	R
	the drawing.	110		·`	
		<del>     </del>			
	<u> </u>				
TOTALBL	OCK 17 FIRE CARRIED FORWARD TO SUMMARY				R

- 1 This Bill of Quantities forms part of the contract documents and is to be read in conjunction therewith.
- 2 All works billed here shall include for the full scope of service specified including but not limited to supply, delivery, installation,
- 3 Quantities indicated here are to be verified by the contractor against the project drawings. All discrepancies shall be brought to
- 4 No variation in rates shall be due based on variation in quantities, rate of exchange or escalation.
- 5 Errors and omissions of equipment or material required to execute the project solution specified or indicated on the drawings shall
- 6 All works required to execute the scope of works in accordance with the project program and quality requirements are deemed
- 7 Rates provided shall include for fixing, hangers, fittings, transformations, sealant and all other items required to deliver a
- 8 The bill of quantities shall not be used as the basis for material order.
- 9 The values here shall be entered in South African Rands and exclusive of VAT.

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	ABOVE THE GROUND EQUIPMENT - BLOCK 18 STAFF HOUSE				
	·				
1	FIRE EQUIPMENT				
	FIRE HOSE REEL:				
	Install non-swinging, rotary pattern type fire hose reels in the positions as				
	indicated on the project drawings.				
	The fire hose reels must be complete with 30 m long, 20 mm diameter				
	hose, hose run-out guide, clamps, nozzle bracket, fixing brackets and				
	bolts, nozzle-cock and 25 mm stop valve all to conform to SANS 543. Fit				
	rotary type cocks to the hose reels.				
	Provide hose reel bases with four bolt holes spaced and orientated as per				
	SANS 543. Use bolts of at least 10 mm diameter and of a suitable length				
	to fix the hose reel to the wall.				
	Hose reel components must be manufactured from the following				
	components:				
	Water seal housing and spindle: In accordance with SANS 543				
	Fire hose: In accordance with SANS 543				
	Hose run out guide: Chromium plated steel				
	Base: Mild steel				
	Complete installed firehose reel	No	1	R	R
2	PORTABLE FIRE EXTINGUISHER:				
	Install portable fire extinguishers with steel bases in the positions				
	indicated on the project drawings.				
	Portable fire extinguishers must be of the type as specified in the Project				
	Specification in accordance with SANS 1 0400 and SANS 0105. CO2 Type:				
	SANS 1567. Extinguishers must be in accordance with SANS 1910. Each				
	fire extinguisher must be complete with a Meranti backing board,				
	mounting brackets and suitable wall anchors. Mount the fire				
	extinguishers with the handle 1,2m from finished floor level.				
2.4	O La DODE No. Characteristic Street and and				
2,1	9 kg DCP Extinguisher complete with mounting board and				
	hanging bracket		<del> </del>		
2.1.1	Positioned in building	No	2	R	R
۲.1.1	r ostaonea in building	140		"	<u>, , , , , , , , , , , , , , , , , , , </u>
2,2	4,5 kg DCP Extinguisher complete with mounting board and		<u> </u>		
,-	hanging bracket				
2.2.1	Positioned in building	No	2	R	R

	Circura				
3	Signage				
	Signage to SANS standrards for all fire requirements.				
3,1	Supply, delivery and installation of a wall mounted single				
	sided 150mm module Red Photo Luminescent F13 Fire				
	Extinguisher sign without a frame at the positions shown on				
	the drawing.	No	2	R	R
3,2	Supply, delivery and installation of a wall mounted single				
	sided 150mm module Red Photo Luminescent F13 Fire Hose Reel				
	Extinguisher sign without a frame at the positions shown on				
	the drawing.	No	1	R	R
<b>-</b>				1	
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TOTALBI	OCK 18 FIRE CARRIED FORWARD TO SUMMARY				R
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- 2 All works billed here shall include for the full scope of service specified including but not limited to supply, delivery, installation,
- 3 Quantities indicated here are to be verified by the contractor against the project drawings. All discrepancies shall be brought to
- 4 No variation in rates shall be due based on variation in quantities, rate of exchange or escalation.
- 5 Errors and omissions of equipment or material required to execute the project solution specified or indicated on the drawings shall
- 6 All works required to execute the scope of works in accordance with the project program and quality requirements are deemed
- 7 Rates provided shall include for fixing, hangers, fittings, transformations, sealant and all other items required to deliver a
- 8 The bill of quantities shall not be used as the basis for material order.
- The values here shall be entered in South African Rands and exclusive of VAT.

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	ABOVE THE GROUND EQUIPMENT - BLOCK 19 STAFF HOUSE				
1	FIRE EQUIPMENT				
	FIRE HOSE REEL:				
	Install non-swinging, rotary pattern type fire hose reels in the positions as				
	indicated on the project drawings.				
	The fire hose reels must be complete with 30 m long, 20 mm diameter				
	hose, hose run-out guide, clamps, nozzle bracket, fixing brackets and				
	bolts, nozzle-cock and 25 mm stop valve all to conform to SANS 543. Fit				
	rotary type cocks to the hose reels.				
	Provide hose reel bases with four bolt holes spaced and orientated as per				
	SANS 543. Use bolts of at least 10 mm diameter and of a suitable length				
	to fix the hose reel to the wall.				
	Hose reel components must be manufactured from the following				
	components:				
	Water seal housing and spindle: In accordance with SANS 543				
	Fire hose: In accordance with SANS 543				
	Hose run out guide: Chromium plated steel				
	Base: Mild steel				
	Complete installed firehose reel	No	1	R	R
2	PORTABLE FIRE EXTINGUISHER:				
	Install portable fire extinguishers with steel bases in the positions				
	indicated on the project drawings.				
	Portable fire extinguishers must be of the type as specified in the Project				
	Specification in accordance with SANS 1 0400 and SANS 0105. CO2 Type:				
	SANS 1567. Extinguishers must be in accordance with SANS 1910. Each				
	fire extinguisher must be complete with a Meranti backing board,				
	mounting brackets and suitable wall anchors. Mount the fire				
	extinguishers with the handle 1,2m from finished floor level.				
2,1	9 kg DCP Extinguisher complete with mounting board and				
<b>د</b> , ±	hanging bracket				
2.1.1	Positioned in building	No	2	R	R
2,2	4,5 kg DCP Extinguisher complete with mounting board and				
	hanging bracket				
2.2.1	Positioned in building	No	2	R	R

		<u> </u>		1		
3	<u>Signage</u>	+				
	Signage to SANS standrards for all fire requirements.	+ +				
	Dignage to SANS standards for an increquirements.					
3,1	Supply, delivery and installation of a wall mounted single					
	sided 150mm module Red Photo Luminescent F13 Fire					
	Extinguisher sign without a frame at the positions shown on					
	the drawing.	No	2	R	R	
			<del>_</del>			
3,2	Supply, delivery and installation of a wall mounted single					
-,	sided 150mm module Red Photo Luminescent F13 Fire Hose Reel					
	Extinguisher sign without a frame at the positions shown on					
	the drawing.	No	1	R	R	
	the drawing.	INO		N .	N	
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	<u>†</u>	+ +				
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TOTALBL	OCK 19 FIRE CARRIED FORWARD TO SUMMARY				R	

- 1 This Bill of Quantities forms part of the contract documents and is to be read in conjunction therewith.
- 2 All works billed here shall include for the full scope of service specified including but not limited to supply, delivery,
- 3 Quantities indicated here are to be verified by the contractor against the project drawings. All discrepancies shall be brought
- 4 No variation in rates shall be due based on variation in quantities, rate of exchange or escalation.
- 5 Errors and omissions of equipment or material required to execute the project solution specified or indicated on the
- 6 All works required to execute the scope of works in accordance with the project program and quality requirements are
- Rates provided shall include for fixing, hangers, fittings, transformations, sealant and all other items required to deliver a
- 8 The bill of quantities shall not be used as the basis for material order.
- 9 The values here shall be entered in South African Rands and exclusive of VAT.

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	ABOVE THE GROUND EQUIPMENT - BLOCK 20 TV ROOMS				
	FIRE EQUIPMENT				
1	PORTABLE FIRE EXTINGUISHER:				1
	Install portable fire extinguishers with steel bases in the positions				
	indicated on the project drawings.				
	Portable fire extinguishers must be of the type as specified in the				
	Project Specification in accordance with SANS 1 0400 and SANS				
	0105. CO2 Type: SANS 1567. Extinguishers must be in accordance				
	with SANS 1910. Each fire extinguisher must be complete with a				
	Meranti backing board, mounting brackets and suitable wall				
	anchors. Mount the fire extinguishers with the handle 1,2m from				
	finished floor level.				
2.1					
2,1	9 kg DCP Extinguisher complete with mounting board and				
	hanging bracket				
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2.1.1	Positioned in classrooms	No	2	R	R
	e:				1
3	Signage CANC - L. C. H.C.				
	Signage to SANS standrards for all fire requirements.				
3,1	Supply, delivery and installation of a wall mounted single				+
3,1	sided 150mm module Green Photo Luminescent E3 Fire				1
	Escape sign without a frame at the positions shown on the				+
		No	4	R	R
	drawing.	INO	4	N.	I N
3,2	Supply, delivery and installation of a wall mounted single				
3,2	sided 150mm module Red Photo Luminescent F13 Fire				
	Extinguisher sign without a frame at the positions shown on				
	the drawing.	No	2	R	R
	the drawing.	INO	2	IX.	I N
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OTAL BLC	DCK 20 FIRE CARRIED FORWARD TO SUMMARY				R

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- 1 This Bill of Quantities forms part of the contract documents and is to be read in conjunction therewith.
- 2 All works billed here shall include for the full scope of service specified including but not limited to supply, delivery, installation,
- 3 Quantities indicated here are to be verified by the contractor against the project drawings. All discrepancies shall be brought to
- 4 No variation in rates shall be due based on variation in quantities, rate of exchange or escalation.
- 5 Errors and omissions of equipment or material required to execute the project solution specified or indicated on the drawings
- 6 All works required to execute the scope of works in accordance with the project program and quality requirements are deemed
- 7 Rates provided shall include for fixing, hangers, fittings, transformations, sealant and all other items required to deliver a
  - The bill of quantities shall not be used as the basis for material order.
- The values here shall be entered in South African Rands and exclusive of VAT.

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	ABOVE THE GROUND EQUIPMENT - BLOCK 21 TYPE 1A GIRLS				
	•				
1	FIRE EQUIPMENT				
	240				
	FIRE HOSE REEL:				
	Install non-swinging, rotary pattern type fire hose reels in the positions				
	as indicated on the project drawings.				
	The fire hose reels must be complete with 30 m long, 20 mm diameter				
	hose, hose run-out guide, clamps, nozzle bracket, fixing brackets and				
	bolts, nozzle-cock and 25 mm stop valve all to conform to SANS 543. Fit				
	rotary type cocks to the hose reels.				
	Provide hose reel bases with four bolt holes spaced and orientated as		•		
	per SANS 543. Use bolts of at least 10 mm diameter and of a suitable				
	length to fix the hose reel to the wall.				
	iength to ha the hose reel to the wall.				
	Hose reel components must be manufactured from the following		<del> </del>		
	components:				
	Water seal housing and spindle: In accordance with SANS 543				
	Fire hose: In accordance with SANS 543				
	Hose run out guide: Chromium plated steel				
	Base: Mild steel				
	Complete installed firehose reel	No	1	R	R
2	PORTABLE FIRE EXTINGUISHER:				
	Install portable fire extinguishers with steel bases in the positions				
	indicated on the project drawings.				
	Portable fire extinguishers must be of the type as specified in the				
	Project Specification in accordance with SANS 1 0400 and SANS 0105.				
	CO2 Type: SANS 1567. Extinguishers must be in accordance with SANS				
	1910. Each fire extinguisher must be complete with a Meranti backing				
	board, mounting brackets and suitable wall anchors. Mount the fire				
	extinguishers with the handle 1,2m from finished floor level.				
2,1	4.5 kg CO2 Extinguisher complete with mounting board and				
	hanging bracket				
2.1.1	Positioned in building	No	2	R	R
2,2	9 kg DCP Extinguisher complete with mounting board and				
	hanging bracket				
2.2.1	Positioned in building	No	4	R	R

3	FIRE SUPPRESSION	+					
- 3	FIRE SUPPRESSION	+					
2.4	N						
3,1	None						
		_					
4	<u>Signage</u>	_					
	Signage to SANS standrards for all fire requirements.						
4,1	Supply, delivery and installation of a wall mounted single						
	sided 150mm module Green Photo Luminescent E3 Fire						
	Escape sign without a frame at the positions shown on the						
	drawing.	No	4	R	R		
4,2	Supply, delivery and installation of a wall mounted single						
	sided 150mm module Red Photo Luminescent F4 Fire						
	Extinguisher sign without a frame at the positions shown on						
	the drawing.	No	2	R	R		
4,3	Supply, delivery and installation of a wall mounted single						
	sided 150mm module Red Photo Luminescent F13 Fire Hose Reel						
	Extinguisher sign without a frame at the positions shown on						
	the drawing.	No	1	R	R		
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TOTAL BL	OCK 21 FIRE CARRIED FORWARD TO SUMMARY				R		
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- 1 This Bill of Quantities forms part of the contract documents and is to be read in conjunction therewith.
- 2 All works billed here shall include for the full scope of service specified including but not limited to supply, delivery, installation,
- 3 Quantities indicated here are to be verified by the contractor against the project drawings. All discrepancies shall be brought to
- 4 No variation in rates shall be due based on variation in quantities, rate of exchange or escalation.
- 5 Errors and omissions of equipment or material required to execute the project solution specified or indicated on the drawings
- 6 All works required to execute the scope of works in accordance with the project program and quality requirements are deemed
- 7 Rates provided shall include for fixing, hangers, fittings, transformations, sealant and all other items required to deliver a
- 8 The bill of quantities shall not be used as the basis for material order.
- 9 The values here shall be entered in South African Rands and exclusive of VAT.

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	ABOVE THE GROUND EQUIPMENT - BLOCK 22 TYPE 1A GIRLS				
1	FIRE EQUIPMENT				
	FIRE HOSE REEL:				
	Install non-swinging, rotary pattern type fire hose reels in the positions				
	as indicated on the project drawings.				
	The fire hose reels must be complete with 30 m long, 20 mm diameter				
	hose, hose run-out guide, clamps, nozzle bracket, fixing brackets and				
	bolts, nozzle-cock and 25 mm stop valve all to conform to SANS 543. Fit				
	rotary type cocks to the hose reels.				
	Provide hose reel bases with four bolt holes spaced and orientated as				
	per SANS 543. Use bolts of at least 10 mm diameter and of a suitable				
	length to fix the hose reel to the wall.				
	, and the second				
	Hose reel components must be manufactured from the following				
	components:				
	Water seal housing and spindle: In accordance with SANS 543				
	Fire hose: In accordance with SANS 543				
	Hose run out guide: Chromium plated steel				
	Base: Mild steel				
	Complete installed firehose reel	No	1	R	R
2	PORTABLE FIRE EXTINGUISHER:				
	Install portable fire extinguishers with steel bases in the positions				
	indicated on the project drawings.				
	Portable fire extinguishers must be of the type as specified in the				
	Project Specification in accordance with SANS 1 0400 and SANS 0105.				
	CO2 Type: SANS 1567. Extinguishers must be in accordance with SANS				
	1910. Each fire extinguisher must be complete with a Meranti backing				
	board, mounting brackets and suitable wall anchors. Mount the fire				
	extinguishers with the handle 1,2m from finished floor level.				
2,1	4.5 kg CO2 Extinguisher complete with mounting board and				
,-	hanging bracket				
2.1.1	Positioned in building	No	2	R	R
	Ŭ	-			
2,2	9 kg DCP Extinguisher complete with mounting board and				
	hanging bracket				
2.2.1	Positioned in building	No	4	R	R
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3	FIDE CLIDDDECCION	+		+			
- 5	FIRE SUPPRESSION			+			
2.4	N			+			
3,1	None			<del> </del>			
				1			
4	<u>Signage</u>			<b>.</b>			
	Signage to SANS standrards for all fire requirements.			<u> </u>			
4,1	Supply, delivery and installation of a wall mounted single						
	sided 150mm module Green Photo Luminescent E3 Fire						
	Escape sign without a frame at the positions shown on the						
	drawing.	No	4	R	R		
4,2	Supply, delivery and installation of a wall mounted single						
	sided 150mm module Red Photo Luminescent F4 Fire						
	Extinguisher sign without a frame at the positions shown on						
	the drawing.	No	2	R	R		
4,3	Supply, delivery and installation of a wall mounted single						
	sided 150mm module Red Photo Luminescent F13 Fire Hose Reel						
	Extinguisher sign without a frame at the positions shown on						
	the drawing.	No	1	R	R		
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TOTAL BL	OCK 22 FIRE CARRIED FORWARD TO SUMMARY				R		

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- 3 Quantities indicated here are to be verified by the contractor against the project drawings. All discrepancies shall be brought to the
- 4 No variation in rates shall be due based on variation in quantities, rate of exchange or escalation.
- 5 Errors and omissions of equipment or material required to execute the project solution specified or indicated on the drawings shall
- 6 All works required to execute the scope of works in accordance with the project program and quality requirements are deemed
- 7 Rates provided shall include for fixing, hangers, fittings, transformations, sealant and all other items required to deliver a functional
- 8 The bill of quantities shall not be used as the basis for material order.
- 9 The values here shall be entered in South African Rands and exclusive of VAT.

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
NO	ABOVE THE GROUND EQUIPMENT - BLOCK 23 HOUSE MOTHER				
	ABOVE THE GROUND EQUITMENT - BESCH 23 HOUSE MOTHER				
1	FIRE EQUIPMENT				
1	FIRE EQUIFINENT				
	FIRE HOSE REEL:				
	Install non-swinging, rotary pattern type fire hose reels in the positions as				
	indicated on the project drawings.				
	The fire hose reels must be complete with 30 m long, 20 mm diameter				
	hose, hose run-out guide, clamps, nozzle bracket, fixing brackets and bolts,				
	nozzle-cock and 25 mm stop valve all to conform to SANS 543. Fit rotary				
	type cocks to the hose reels.				
	Provide hose reel bases with four bolt holes spaced and orientated as per				
	SANS 543. Use bolts of at least 10 mm diameter and of a suitable length to				
	fix the hose reel to the wall.				
	Hose reel components must be manufactured from the following				
	components:				
	Water seal housing and spindle: In accordance with SANS 543				
	Fire hose: In accordance with SANS 543				
	Hose run out guide: Chromium plated steel				
	Base: Mild steel				
	Complete installed firehose reel	No	1	R	R
2	PORTABLE FIRE EXTINGUISHER:				
	Install portable fire extinguishers with steel bases in the positions				
	indicated on the project drawings.				
	Portable fire extinguishers must be of the type as specified in the Project				
	Specification in accordance with SANS 1 0400 and SANS 0105. CO2 Type:				
	SANS 1567. Extinguishers must be in accordance with SANS 1910. Each fire				
	extinguisher must be complete with a Meranti backing board, mounting				
	brackets and suitable wall anchors. Mount the fire extinguishers with the				
	handle 1,2m from finished floor level.				
2,1	9 kg DCP Extinguisher complete with mounting board and				
	hanging bracket				
2.1.1	Positioned in building	No	3	R	R

3	<u>Signage</u>		
	Signage to SANS standrards for all fire requirements.		
3,1	Supply, delivery and installation of a wall mounted single		
	sided 150mm module Red Photo Luminescent F13 Fire		
	Extinguisher sign without a frame at the positions shown on		

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- 3 Quantities indicated here are to be verified by the contractor against the project drawings. All discrepancies shall be brought to the
- 4 No variation in rates shall be due based on variation in quantities, rate of exchange or escalation.
- 5 Errors and omissions of equipment or material required to execute the project solution specified or indicated on the drawings shall be
- 6 All works required to execute the scope of works in accordance with the project program and quality requirements are deemed
- 7 Rates provided shall include for fixing, hangers, fittings, transformations, sealant and all other items required to deliver a functional
- 8 The bill of quantities shall not be used as the basis for material order.
- 9 The values here shall be entered in South African Rands and exclusive of VAT.

TEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	ABOVE THE GROUND EQUIPMENT - BLOCK 24				
1	FIRE EQUIPMENT				
	FIRE HOSE REEL:				
	Install non-swinging, rotary pattern type fire hose reels in the positions as				
	indicated on the project drawings.				
	The fire hose reels must be complete with 30 m long, 20 mm diameter				
	hose, hose run-out guide, clamps, nozzle bracket, fixing brackets and bolts,				
	nozzle-cock and 25 mm stop valve all to conform to SANS 543. Fit rotary				
	type cocks to the hose reels.				
	Provide hose reel bases with four bolt holes spaced and orientated as per				
	SANS 543. Use bolts of at least 10 mm diameter and of a suitable length to				
	fix the hose reel to the wall.				
	Hose reel components must be manufactured from the following				
	components:				
	Water seal housing and spindle: In accordance with SANS 543				
_	Fire hose: In accordance with SANS 543				
	Hose run out guide: Chromium plated steel				
	Base: Mild steel				
	Complete installed firehose reel	No	1	R	R
_	DODTADLE FIDE EVENICUED				
	PORTABLE FIRE EXTINGUISHER:				
	Install portable fire extinguishers with steel bases in the positions indicated				
	on the project drawings.				
	Portable fire extinguishers must be of the type as specified in the Project				
	Specification in accordance with SANS 1 0400 and SANS 0105. CO2 Type:				
	SANS 1567. Extinguishers must be in accordance with SANS 1910. Each fire				
	extinguisher must be complete with a Meranti backing board, mounting				
	brackets and suitable wall anchors. Mount the fire extinguishers with the handle 1,2m from finished floor level.				
	nandie 1,2m from missieu noor iever.				
	9 kg DCP Extinguisher complete with mounting board and				
	hanging bracket	No	3	R	R
4	Signage				
_	Signage to SANS standrards for all fire requirements.				
4,1	Supply, delivery and installation of a wall mounted single				
	sided 150mm module Red Photo Luminescent F13 Fire Hose and				
	Extinguisher sign without a frame at the positions shown on				
_	the drawing.	No	1	R	R
	Extinguisher sign without a frame at the		positions shown on	positions shown on	positions shown on

BLOCK 24 FIRE CARRIED FORWARD TO SUMMARY				R
the drawing.	No	1	R	R
Extinguisher sign without a frame at the positions shown on				
sided 150mm module Red Photo Luminescent F4 Fire				
Supply, delivery and installation of a wall mounted single				

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- 3 Quantities indicated here are to be verified by the contractor against the project drawings. All discrepancies shall be brought to
- 4 No variation in rates shall be due based on variation in quantities, rate of exchange or escalation.
- 5 Errors and omissions of equipment or material required to execute the project solution specified or indicated on the drawings
- 6 All works required to execute the scope of works in accordance with the project program and quality requirements are deemed
- 7 Rates provided shall include for fixing, hangers, fittings, transformations, sealant and all other items required to deliver a
- 8 The bill of quantities shall not be used as the basis for material order.
- The values here shall be entered in South African Rands and exclusive of VAT.

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	ABOVE THE GROUND EQUIPMENT - BLOCK 25 TYPE 1A GIRLS				
	·				
1	FIRE EQUIPMENT				
	240				
	FIRE HOSE REEL:				
	Install non-swinging, rotary pattern type fire hose reels in the positions				
	as indicated on the project drawings.				
	The fire hose reels must be complete with 30 m long, 20 mm diameter				
	hose, hose run-out guide, clamps, nozzle bracket, fixing brackets and				
	bolts, nozzle-cock and 25 mm stop valve all to conform to SANS 543. Fit				
	rotary type cocks to the hose reels.				
	Provide hose reel bases with four bolt holes spaced and orientated as				
	per SANS 543. Use bolts of at least 10 mm diameter and of a suitable				
	length to fix the hose reel to the wall.				
	iength to ha the hose reel to the wall.				
	Hose reel components must be manufactured from the following				
	components:				
	Water seal housing and spindle: In accordance with SANS 543				
	Fire hose: In accordance with SANS 543				
	Hose run out guide: Chromium plated steel				
	Base: Mild steel				
	200011111111111111111111111111111111111				
	Complete installed firehose reel	No	1	R	R
	·				
2	PORTABLE FIRE EXTINGUISHER:				
	Install portable fire extinguishers with steel bases in the positions				
	indicated on the project drawings.				
	Portable fire extinguishers must be of the type as specified in the				
	Project Specification in accordance with SANS 1 0400 and SANS 0105.				
	CO2 Type: SANS 1567. Extinguishers must be in accordance with SANS				
	1910. Each fire extinguisher must be complete with a Meranti backing				
	board, mounting brackets and suitable wall anchors. Mount the fire				
	extinguishers with the handle 1,2m from finished floor level.				
2,1	4.5 kg CO2 Extinguisher complete with mounting board and				
,	hanging bracket				
2.1.1	Positioned in building	No	2	R	R
	J				
2,2	9 kg DCP Extinguisher complete with mounting board and				
	hanging bracket				
2.2.1	Positioned in building	No	4	R	R

		1		1	
3	FIRE SUPPRESSION	+		+	
- 3	FIRE SUPPRESSION	-		+	
2.4	N	_		+	
3,1	None			<del> </del>	
				1	
4	<u>Signage</u>	_		<b>.</b>	
	Signage to SANS standrards for all fire requirements.			<u> </u>	
4,1	Supply, delivery and installation of a wall mounted single				
	sided 150mm module Green Photo Luminescent E3 Fire				
	Escape sign without a frame at the positions shown on the				
	drawing.	No	4	R	R
4,2	Supply, delivery and installation of a wall mounted single				
	sided 150mm module Red Photo Luminescent F4 Fire				
	Extinguisher sign without a frame at the positions shown on				
	the drawing.	No	2	R	R
4,3	Supply, delivery and installation of a wall mounted single				
	sided 150mm module Red Photo Luminescent F13 Fire Hose Reel			1	
	Extinguisher sign without a frame at the positions shown on			Ī	
	the drawing.	No	1	R	R
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TOTAL BL	OCK 25 FIRE CARRIED FORWARD TO SUMMARY				R
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- 1 This Bill of Quantities forms part of the contract documents and is to be read in conjunction therewith.
- 2 All works billed here shall include for the full scope of service specified including but not limited to supply, delivery, installation,
- 3 Quantities indicated here are to be verified by the contractor against the project drawings. All discrepancies shall be brought to
- 4 No variation in rates shall be due based on variation in quantities, rate of exchange or escalation.
- 5 Errors and omissions of equipment or material required to execute the project solution specified or indicated on the drawings
- 6 All works required to execute the scope of works in accordance with the project program and quality requirements are deemed
- 7 Rates provided shall include for fixing, hangers, fittings, transformations, sealant and all other items required to deliver a
- 8 The bill of quantities shall not be used as the basis for material order.
- 9 The values here shall be entered in South African Rands and exclusive of VAT.

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	ABOVE THE GROUND EQUIPMENT - BLOCK 26 TYPE 1A GIRLS				
1	FIRE EQUIPMENT				
	FIRE HOSE REEL:				
	Install non-swinging, rotary pattern type fire hose reels in the positions				
	as indicated on the project drawings.				
	The fire hose reels must be complete with 30 m long, 20 mm diameter				
	hose, hose run-out guide, clamps, nozzle bracket, fixing brackets and				
	bolts, nozzle-cock and 25 mm stop valve all to conform to SANS 543. Fit				
	rotary type cocks to the hose reels.				
	Provide hose reel bases with four bolt holes spaced and orientated as				
	per SANS 543. Use bolts of at least 10 mm diameter and of a suitable				
	length to fix the hose reel to the wall.				
	Hose reel components must be manufactured from the following				
	components:				
	Water seal housing and spindle: In accordance with SANS 543				
	Fire hose: In accordance with SANS 543				
	Hose run out guide: Chromium plated steel				
	Base: Mild steel				
	Complete installed firehose reel	No	1	R	R
2	PORTABLE FIRE EXTINGUISHER:				
	Install portable fire extinguishers with steel bases in the positions				
	indicated on the project drawings.				
	Portable fire extinguishers must be of the type as specified in the				
	Project Specification in accordance with SANS 1 0400 and SANS 0105.				
	CO2 Type: SANS 1567. Extinguishers must be in accordance with SANS				
	1910. Each fire extinguisher must be complete with a Meranti backing				
	board, mounting brackets and suitable wall anchors. Mount the fire				
	extinguishers with the handle 1,2m from finished floor level.				
2,1	4.5 kg CO2 Extinguisher complete with mounting board and				
	hanging bracket				
	<u> </u>				
2.1.1	Positioned in building	No	2	R	R
	Ü				
2,2	9 kg DCP Extinguisher complete with mounting board and				
·	hanging bracket				
2.2.1	Positioned in building	No	4	R	R
	<u> </u>				

3	FIRE SUPPRESSION	+			
- 3	FIRE SUPPRESSION	+			
2.4	N				
3,1	None				
		_			
4	<u>Signage</u>	_			
	Signage to SANS standrards for all fire requirements.				
4,1	Supply, delivery and installation of a wall mounted single				
	sided 150mm module Green Photo Luminescent E3 Fire				
	Escape sign without a frame at the positions shown on the				
	drawing.	No	4	R	R
4,2	Supply, delivery and installation of a wall mounted single				
	sided 150mm module Red Photo Luminescent F4 Fire				
	Extinguisher sign without a frame at the positions shown on				
	the drawing.	No	2	R	R
4,3	Supply, delivery and installation of a wall mounted single				
	sided 150mm module Red Photo Luminescent F13 Fire Hose Reel				
	Extinguisher sign without a frame at the positions shown on				
	the drawing.	No	1	R	R
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TOTAL BL	OCK 26 FIRE CARRIED FORWARD TO SUMMARY				R

- 1 This Bill of Quantities forms part of the contract documents and is to be read in conjunction therewith.
- 2 All works billed here shall include for the full scope of service specified including but not limited to supply, delivery, installation,
- 3 Quantities indicated here are to be verified by the contractor against the project drawings. All discrepancies shall be brought to the
- 4 No variation in rates shall be due based on variation in quantities, rate of exchange or escalation.
- 5 Errors and omissions of equipment or material required to execute the project solution specified or indicated on the drawings shall be
- 6 All works required to execute the scope of works in accordance with the project program and quality requirements are deemed
- 7 Rates provided shall include for fixing, hangers, fittings, transformations, sealant and all other items required to deliver a functional
- 8 The bill of quantities shall not be used as the basis for material order.
- 9 The values here shall be entered in South African Rands and exclusive of VAT.

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	ABOVE THE GROUND EQUIPMENT - BLOCK 33				
1	FIRE EQUIPMENT				
	FIRE HOSE REEL:				
	Install non-swinging, rotary pattern type fire hose reels in the positions as				
	indicated on the project drawings.				
	The fire hose reels must be complete with 30 m long, 20 mm diameter				
	hose, hose run-out guide, clamps, nozzle bracket, fixing brackets and bolts,				
	nozzle-cock and 25 mm stop valve all to conform to SANS 543. Fit rotary				
	type cocks to the hose reels.				
	Provide hose reel bases with four bolt holes spaced and orientated as per				
	SANS 543. Use bolts of at least 10 mm diameter and of a suitable length to				
	fix the hose reel to the wall.				
	Hose reel components must be manufactured from the following				
	components:				
	Water seal housing and spindle: In accordance with SANS 543				
	Fire hose: In accordance with SANS 543				
	Hose run out guide: Chromium plated steel				
	Base: Mild steel				
	Complete installed firehose reel	No	1	R	R
2	PORTABLE FIRE EXTINGUISHER:				
	Install portable fire extinguishers with steel bases in the positions indicated				
	on the project drawings.				
	Portable fire extinguishers must be of the type as specified in the Project				
	Specification in accordance with SANS 1 0400 and SANS 0105. CO2 Type:				
	SANS 1567. Extinguishers must be in accordance with SANS 1910. Each fire				
	extinguisher must be complete with a Meranti backing board, mounting				
	brackets and suitable wall anchors. Mount the fire extinguishers with the				
	handle 1,2m from finished floor level.				
2.2	9 kg DCP Extinguisher complete with mounting board and				
2,2		No	2	В	D
	hanging bracket	No	3	R	R
4	<u>Signage</u>				
-	Signage to SANS standrards for all fire requirements.		1		
	Signage to Salvo standialus foi all file requirements.		<del>                                     </del>		<del>                                     </del>
4,1	Supply, delivery and installation of a wall mounted single		<del> </del>		
7,1	sided 150mm module Red Photo Luminescent F13 Fire Hose and		<del>                                     </del>		<del>                                     </del>
	Extinguisher sign without a frame at the positions shown on		<del>                                     </del>		<del>                                     </del>
	the drawing.	No	1	R	R
	une arawing.	INU	<del>                                     </del>	Λ.	''

	BLOCK 33 FIRE CARRIED FORWARD TO SUMMARY				R
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		<del>-  </del>			
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		+			
				1	
		+		1	
	the drawing.	No	1	R	R
	Extinguisher sign without a frame at the positions shown on				
	sided 150mm module Red Photo Luminescent F4 Fire				
4,2	Supply, delivery and installation of a wall mounted single				

- 1 This Bill of Quantities forms part of the contract documents and is to be read in conjunction therewith.
- 2 All works billed here shall include for the full scope of service specified including but not limited to supply, delivery, installation,
- 3 Quantities indicated here are to be verified by the contractor against the project drawings. All discrepancies shall be brought to the
- 4 No variation in rates shall be due based on variation in quantities, rate of exchange or escalation.
- 5 Errors and omissions of equipment or material required to execute the project solution specified or indicated on the drawings shall be
- 6 All works required to execute the scope of works in accordance with the project program and quality requirements are deemed
- 7 Rates provided shall include for fixing, hangers, fittings, transformations, sealant and all other items required to deliver a functional
- 8 The bill of quantities shall not be used as the basis for material order.
- 9 The values here shall be entered in South African Rands and exclusive of VAT.

RE HOSE REEL: stall non-swinging, rotary pattern type fire hose reels in the positions as dicated on the project drawings. le fire hose reels must be complete with 30 m long, 20 mm diameter use, hose run-out guide, clamps, nozzle bracket, fixing brackets and bolts, by izzle-cock and 25 mm stop valve all to conform to SANS 543. Fit rotary use cocks to the hose reels.				
RE EQUIPMENT  RE HOSE REEL:  Stall non-swinging, rotary pattern type fire hose reels in the positions as dicated on the project drawings.  The fire hose reels must be complete with 30 m long, 20 mm diameter use, hose run-out guide, clamps, nozzle bracket, fixing brackets and bolts, buzzle-cock and 25 mm stop valve all to conform to SANS 543. Fit rotary use cocks to the hose reels.				
RE HOSE REEL:  Stall non-swinging, rotary pattern type fire hose reels in the positions as dicated on the project drawings.  The fire hose reels must be complete with 30 m long, 20 mm diameter use, hose run-out guide, clamps, nozzle bracket, fixing brackets and bolts, ozzle-cock and 25 mm stop valve all to conform to SANS 543. Fit rotary pee cocks to the hose reels.				
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dicated on the project drawings.  The fire hose reels must be complete with 30 m long, 20 mm diameter use, hose run-out guide, clamps, nozzle bracket, fixing brackets and bolts, bzzle-cock and 25 mm stop valve all to conform to SANS 543. Fit rotary pe cocks to the hose reels.				
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ezzle-cock and 25 mm stop valve all to conform to SANS 543. Fit rotary pe cocks to the hose reels.				
pe cocks to the hose reels.				
ovide hose reel bases with four bolt holes spaced and orientated as per				
NS 543. Use bolts of at least 10 mm diameter and of a suitable length to				
the hose reel to the wall.				
ose reel components must be manufactured from the following				
mponents:				
ater seal housing and spindle: In accordance with SANS 543				
e hose: In accordance with SANS 543				
ose run out guide: Chromium plated steel				
se: Mild steel				
mplete installed firehose reel	No	1	R	R
ADTADI E FIDE EVTINGUIGHED.				+
ORTABLE FIRE EXTINGUISHER: stall portable fire extinguishers with steel bases in the positions indicated				+
the project drawings.				
ortable fire extinguishers must be of the type as specified in the Project				+
ecification in accordance with SANS 1 0400 and SANS 0105. CO2 Type:				
.NS 1567. Extinguishers must be in accordance with SANS 1910. Each fire				
tinguisher must be complete with a Meranti backing board, mounting				
ackets and suitable wall anchors. Mount the fire extinguishers with the				
ndle 1,2m from finished floor level.				
nule 1,211 from missied froot level.				
kg DCP Extinguisher complete with mounting board and				
nging bracket	No	2	R	R
gnage				_
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pply, delivery and installation of a wall mounted single				1
ppiy, delivery and installation of a wall mounted single led 150mm module Red Photo Luminescent F13 Fire Hose and				
			_	R
ng gn	age age to SANS standrards for all fire requirements.  Dly, delivery and installation of a wall mounted single d 150mm module Red Photo Luminescent F13 Fire Hose and	ging bracket  No  age age to SANS standrards for all fire requirements.  bly, delivery and installation of a wall mounted single d 150mm module Red Photo Luminescent F13 Fire Hose and nguisher sign without a frame at the positions shown on	ging bracket  No 2  age age to SANS standrards for all fire requirements.  bly, delivery and installation of a wall mounted single d 150mm module Red Photo Luminescent F13 Fire Hose and aguisher sign without a frame at the positions shown on	ging bracket  No 2 R  age age to SANS standrards for all fire requirements.  bly, delivery and installation of a wall mounted single dd 150mm module Red Photo Luminescent F13 Fire Hose and

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TOTAL	BLOCK 34 FIRE CARRIED FORWARD TO SUMMARY		R

#### Preliminaries to the Bill - Fire Services BOQ

- 1 This Bill of Quantities forms part of the contract documents and is to be read in conjunction therewith.
- 2 All works billed here shall include for the full scope of service specified including but not limited to supply, delivery,
- 3 Quantities indicated here are to be verified by the contractor against the project drawings. All discrepancies shall be
- 4 No variation in rates shall be due based on variation in quantities, rate of exchange or escalation.
- 5 Errors and omissions of equipment or material required to execute the project solution specified or indicated on the
- 6 All works required to execute the scope of works in accordance with the project program and quality requirements are
- Rates provided shall include for fixing, hangers, fittings, transformations, sealant and all other items required to deliver a
- 8 The bill of quantities shall not be used as the basis for material order.
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ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
1	GALVANIZED PIPING SYSTEM: (Above ground)				
	Galvanized Steel Pipe: (Surface Mounted)				
	Galvanized steel pipe in accordance with SANS 62-1 Class				
	MEDIUM installed complete with short lengths, cutting, screwed				
	connections strictly in accordance with the Manufacturer's				
	instructions, support brackets etc.				
	Threading conforms to SABS 1109 (equivalent to ISO 7)				
	Pipes are galvanized to EN 10240 or ISO 1461 as required				
	All cold water pipes to be installed as per SANS 10252				
	regulations.				
	Make all threaded pipe joints with approved cold water pipe				
	jointing compound or Teflon tape. Provide flanged joints with				
	gaskets. Flanges must be in accordance with BS10, Table F.				
	Ream ends of pipes before fitting. Install pipework at a slight				
	slope to avoid air entrapment. Install pipes in a neat and				
	symmetrical manner.				
	All piping must be pressure tested in the presence of the				
	Department and the Department must carry out all inspections				
	before backfilling takes place				
1,0	Fire Hose Reels				
	Supply and install and commision 30m Fire Hose reels as per the				
	Fire Site layout drawing.	No	2	R	R
1,2	Fire Main Ring 100mm HPPE pipework including trenching Fire				
	reticulation including trenching	m	2000	R	R
1,3	10KL Jojo Tanks mounted on steel Stab 200mm High for Fire				
		No	30	R	R
3	FIRE PUMP ROOM				
2.4	Five Bures				
3,1	Fire Pump				
	Electric driven fire pump to NFPA/FM standards. Including NFPA				
	electrical control panel.  Pressure head of 40 meter and flow rate of 70 m^3/h. Patterson				
	·				
	Type Fire Pumps sets including including a jockey pump for the				
211	Complete installed and commissioned fire nums	No	6	D	D
3.1.1	Complete installed and commissioned fire pump	No	6	R	R
3,2	Fire Tank				
ع,د	THE TAIK		<u> </u>		

	10KL Jojo Tanks mounted on steel Stab 2000mm High for Fire.				
	Tanks shall be interconnected with valves points that could be				
	opened in case of emergency.				
3.2.1	Complete installed fire tank	No	9	R	R
3,3	Expansion tank				
	Expansion tank of 200 liters rated at 600 kPa complete with 25NB				
	Isolation valve.				
	Pressure test certificate required. To be installed according to				
	supplier requirements.				
	Removable and replaceable heavy-duty butyl rubber bladder	No	3	R	R
				1	
3.3.1	Complete installed and commissioned expansion tank	No	2	R	R
3,4	Pressure switch				
	Pressure switch adjustable from 300kPa to 500 kPa range.				
	Pressure swith shall control the pumps to alternate to the				
	standby pump if the duty pump fails.				
3.4.1	Complete installed and commissioned pressure switch	No	3	R	R
3,5	Pressure gauge				
	100mm Diam Glycerine filled pressure gauge.				
	0 to 600 kPa range and working pressure at 400 kPa.				
2.5.1	Complete installed and commissioned massages and	N	2	R	
3.5.1	Complete installed and commissioned pressure gauge	No	3	K	R
4	Signage				
•	Signage to SANS standrards for all fire requirements. This				
	includes the entire site.				
	includes the chine site.				
4,1	Complete installed set of signage	No	1	R	R
	HDPE Piping System: (Under ground buried)				
	HDPE Pipe: (Under ground buried)				
	HDPE pipe to SANS 4427 Part 2				
	Material grade PE 100 and pressure rating PN 20				
	Installed complete with cutting, strictly in accordance with the				
	Manufacturer's instructions and SANS 4427				
	Connections underground shall be busion or butt welded only.				
	Supply pipe in 12 m (minimum) lengths.				
	To ensure water tightness use butt-welded joints (SABS 0268 –				
	Part 1) or electro-fusion welding (SABS 0268 – Part 2) where butt				
	welding is not possible.				
	No compression fittings are allowed except if in watertight				
	manholes.				
	All piping must be pressure tested in the presence of the				
	Department and the Department must carry out all inspections				
	before backfilling takes place.				
	Prepare trenches and do backfilling and compacting in				
	accordance with SANS 1200.				

Underground 110mm main fire ring networks including all hands				
Underground 110mm main fire ring networks including all bends,				
isolation valves, non return valves, air valves, strainers, reducing				
Tees to hydrants and fire hose connections as per the fire site				
layout drawings including trenching and backfilling				
	m	2200	R	R
HDPE Manholes				
HDPE manholes: All material for HDPE manholes to conform to				
HDPE: Type PE 100 SABS ISO 4427 specifications and all welding				
to SABS 0268, SABS 0269, SABS method 1269, SABS 0270, SABS				
1655 and SABS 1671. Manhole shafts to be structured or solid				
wall HDPE pipes with 8,0 kN/m2 ring stiffness or alternatively				
manufactured to same standard. HDPE pipes to be welded to				
manhole. Manhole to be similar				
to HDPE sewer manholes (detail TYPE NO DT 04/D) and welding				
details as per included detail (TYPE NO DT 20/SW).				
Complete with cover.				
Install complete manhole and connect to pipes	No	12	R	R
<del>                                     </del>				
<del>                                     </del>				
TOTAL BLOCK 36 CARRIED FORWARD TO SUMMARY				R

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- 2 All works billed here shall include for the full scope of service specified including but not limited to supply, delivery, installation,
- 3 Quantities indicated here are to be verified by the contractor against the project drawings. All discrepancies shall be brought to the
- 4 No variation in rates shall be due based on variation in quantities, rate of exchange or escalation.
- 5 Errors and omissions of equipment or material required to execute the project solution specified or indicated on the drawings shall be
- 6 All works required to execute the scope of works in accordance with the project program and quality requirements are deemed
- 7 Rates provided shall include for fixing, hangers, fittings, transformations, sealant and all other items required to deliver a functional
- 8 The bill of quantities shall not be used as the basis for material order.
- 9 The values here shall be entered in South African Rands and exclusive of VAT.

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	ABOVE THE GROUND EQUIPMENT - BLOCK M				
1	FIRE EQUIPMENT				
	FIRE HOSE REEL:				
	Install non-swinging, rotary pattern type fire hose reels in the positions as				
	indicated on the project drawings.				
	The fire hose reels must be complete with 30 m long, 20 mm diameter				
	hose, hose run-out guide, clamps, nozzle bracket, fixing brackets and bolts,				
	nozzle-cock and 25 mm stop valve all to conform to SANS 543. Fit rotary				
	type cocks to the hose reels.				
	Provide hose reel bases with four bolt holes spaced and orientated as per				
	SANS 543. Use bolts of at least 10 mm diameter and of a suitable length to				
	fix the hose reel to the wall.				
	Hose reel components must be manufactured from the following				
	components:				
	Water seal housing and spindle: In accordance with SANS 543				
	Fire hose: In accordance with SANS 543				
	Hose run out guide: Chromium plated steel				
	Base: Mild steel				
	Complete installed firehose reel	No	1	R	R
2	PORTABLE FIRE EXTINGUISHER:				
	Install portable fire extinguishers with steel bases in the positions indicated				
	on the project drawings.				
	Portable fire extinguishers must be of the type as specified in the Project				
	Specification in accordance with SANS 1 0400 and SANS 0105. CO2 Type:				
	SANS 1567. Extinguishers must be in accordance with SANS 1910. Each fire				
	extinguisher must be complete with a Meranti backing board, mounting				
	brackets and suitable wall anchors. Mount the fire extinguishers with the				
	handle 1,2m from finished floor level.				
2,2	9 kg DCP Extinguisher complete with mounting board and				
۷,۷	hanging bracket	No	3	R	R
	Industries with the state of th	INU	3	11	<b>"</b>
4	Signage				<del>                                     </del>
_	Signage to SANS standrards for all fire requirements.				<del>                                     </del>
	Signage to shire standial as for all fire requirements.				
4,1	Supply, delivery and installation of a wall mounted single				<del>                                     </del>
→,⊥	sided 150mm module Red Photo Luminescent F13 Fire Hose and				1
	Extinguisher sign without a frame at the positions shown on				
	the drawing.	No	1	R	R
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TOTAL	BLOCK M FIRE CARRIED FORWARD TO SUMMARY				R
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		+			
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	the drawing.	No	1	R	R
	Extinguisher sign without a frame at the positions shown on				
-,=	sided 150mm module Red Photo Luminescent F4 Fire				
4,2	Supply, delivery and installation of a wall mounted single				

## **MOEDWIL COMBINED SCHOOL**

ITEM	BILL NUMBER	TOTAL AMOUNT
	SUMMARY OF BILLS OF QUANTITIES	
	FIRE SERVICES - FIRE SERVICES INSTALLATIONS	
1	PRELIMINARY & GENERALS	R
2	SITE	R
3	BLOCK 6	R
4	BLOCK 7	R
5	BLOCK 8	R
6	BLOCK 9	R
7	BLOCK 10	R
8	BLOCK 11	R
9	BLOCK 12	R
10	BLOCK 13	R
11	BLOCK 14	R
12	BLOCK 15	R
13	BLOCK 16	R
14	BLOCK 17	R
15	BLOCK 18	R
16	BLOCK 19	R
17	BLOCK 20	R
18	BLOCK 21	R
19	BLOCK 22	R
20	BLOCK 23	R
21	BLOCK 24	R

22	BLOCK 25	R
23	BLOCK 26	R
24	BLOCK 33	R
25	DLOCK 24	D
25	BLOCK 34	R
26	BLOCK 36	R
20	DESCR 30	N
27	BLOCK M	R
TOTAL AN	10UNT EXCL. 15% VAT	R

	MECHANICAL INSTALLATIONS SUMMARY				
Bill No.	DESCRIPTION	TOTAL AMOUNT			
1	PHASE 2: HEATING, VENTILATION AND AIR-CONDITIONING.	R			
2	PHASE 2: FIRE PROTECTION SERVICES	R			
3	PHASE 2: MECHANICAL EQUIPMENT.	R			
TOTAL PA SUMMAR	RT C MECHANICAL INSTALLATIONS CARRIED FORWARD TO BUILDING Y	R			

# PART D:

#### **MOEDWIL COMBINED SCHOOL**

#### Preliminaries to the Bill

- 1 This Bill of Quantities forms part of the contract documents and is to be read in conjunction therewith.
- 2 All works billed here shall include for the full scope of service specified including but not limited to supply, delivery, installation, commissioning, documentation, building tuning, project closeout and administrative requirements, and all works as necessary to provide a working product in accordance with the project performance criteria.
- 3 Quantities indicated here are to be verified by the contractor against the project drawings. All discrepancies shall be brought to the attention of the responsible engineer. Should no queries be raised the contract totals and rates provided shall be deemed sufficient for the due execution of the works in accordance with the engineers intent communicated through the project drawings and these specifications.
- 4 No variation in rates shall be due based on variation in quantities, rate of exchange or escalation.
- 5 Errors and omissions of equipment or material required to execute the project solution specified or indicated on the drawings shall be brought to the attention of the responsible engineer for clarification, failing which the provision of such items shall be deemed included in the project rates.
- 6 All works required to execute the scope of works in accordance with the project program and quality requirements are deemed included in the rates and totals provided below.
- Rates provided shall include for fixing, hangers, fittings, transformations, sealant and all other items required to deliver a functional system in accordance with the design intent and specifications. Rate includes the supply, delivery, labour and installation of equipment
- 8 The bill of quantities shall not be used as the basis for material order.
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#### **BILL 1: PRELIMINARY & GENERALS**

		Unit	Quantity	Rate	Amount
1,1	Site Establishment	lot	1	R	R
1,2	Workshop Drawings	No	3	R	R
1.3	Builder's Works				
	The Contractor shall make provision for sleeves, building swraps and all other supporting equipment to complete the installation.	lot	1	R	R
1.4	OPERATING AND MAINTENANCE MANUALS The Contractor shall make provision for 4 x copies of O & M Manuals in accordance with the detail in the Standard specification.	No	3	R	R
1.5	TRAINING OF CLIENTS STAFF The Contractor shall make provision for 1 full day's training of the Clients Staff, on the operation of the installation.	1	5	R	R
1.6	AS-BUILT LAYOUT DRAWINGS  The Contractor shall make provision for a detailed set of As				-
	Fitted Layout drawings of the entire installation, as the project progresses.	No	3	R	R
1.7	COMMISIONING AND TESTING				

II			İ	I	l II
	The Contractor shall make provision to commission and				
	pressure test the installation during construction		1	-	R
		lot			
1.8	MAINTENANCE AND GUARANTEE				
	The Contractor shall make provision for 1 x Full years				
	Maintenance and Guarantee of the entire installation. 11 x			_	
	Standard Maintenance visits and 1 x Major service is required	lot	12	R	R
	throughout the 12 months.				
1.9	External uPVC or HDPE pipework connection from site				
2.5	reticulation undergound pipework to connect to internal copper	No	6	R	R
	pipework.				
	piperrollik				
1.10	Contingency Amount: Included for the future unforeseen future				
1.10	changes.	lot	1	R	R
	Changes.				
TOTAL CA	ARRIED FORWARD TO SUMMARY				R

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- Quantities indicated here are to be verified by the contractor against the project drawings. All discrepancies shall be brought to the attention of the responsible engineer. Should no queries be raised the contract totals and rates provided shall be deemed
- 4 No variation in rates shall be due based on variation in quantities, rate of exchange or escalation.
- 5 Errors and omissions of equipment or material required to execute the project solution specified or indicated on the drawings
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- 8 The bill of quantities shall not be used as the basis for material order.
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ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	BLOCK 6 - TYPE 1A BOYS				
	BLOCK 0- TIPE IA BOTO				
1	PIPING PP-R (Polypropolyne)				
1,1	PP-R Pipe: Hot and Cold Water Piping.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 2.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.1.1	outside dia 20	m	120	R	R
1.1.1	outside dia 20	111	120	N	K
1.1.2	outside dia 25	m	40	R	R
112	autaida dia 40	,	20	D	D.
1.1.3	outside dia 40	m	20	R	R
1.1.4	outside dia 50	m	10	R	R
1,2	Bends 90 deg				
	Electrofusion fitting. Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.2.1	outside dia 20	No	80	R	R
1.2.2	outside dia 25	No	30	R	R
1.2.3	outside dia 32	No	20	R	R
1.2.4	outside dia 40	No	15	R	R
1.2.4	outside dia 40	NO	15	N	K
1,3	Tee equal				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.3.1	outside dia 20	No	30	R	R
1.3.2	outside dia 25	No	15	R	R
1.3.3	outside dia 40	No	10	R	R
1,4	Tee reducing				

Electrofusion fitting. Polypropylene Random Co-Polymer (PPR) in accordance with SAN		1		
Polypropylene Random Co-Polymer (PPR) in accordance with SAN				
	IS			
15874 Part 3. Pressure rating SDR 7.4 or Pipe series S 3.2				
Tressure rating 5DN 7.4 of Tipe Series 5.5.2				
1.4.1 outside diam 25 x 20	No	15	R	R
1.4.2 outside diam 32 x 20	No	5	R	R
1,5 Reducer concentric				
Electrofusion fitting.				
Polypropylene Random Co-Polymer (PPR) in accordance with SAN	IS			
15874 Part 3.				
Pressure rating SDR 7.4 or Pipe series S 3.2				
1.5.1 outside diam 25 x 20	No	20	R	R
1.5.1   Outside diam 25 x 20	INO	20	ĸ	ĸ
1.5.2 outside diam 40 x 20	No	10	R	R
1,6 Union screwed				
Electrofusion fitting.	ıc			
Polypropylene Random Co-Polymer (PPR) in accordance with SAN 15874 Part 3.	15			
Pressure rating SDR 7.4 or Pipe series S 3.2				
1.6.1 outside dia 20	No	10	R	R
		_		
1.6.2 outside dia 25	No	10	R	R
1.6.3 outside dia 32	No	10	R	R
1,7 Socket				
Electrofusion fitting.				
Polypropylene Random Co-Polymer (PPR) in accordance with SAN 15874 Part 3.	15			
Pressure rating SDR 7.4 or Pipe series S 3.2				
The source running out with on a high source of the				
1.7.1 outside dia 20	No	10	R	R
1.7.2 outside dia 25	No	10	R	R
1.7.3 outside dia 32	No	6	R	R
2.7.5 Judiside did 52	140		••	
1,8 Female adaptor				
Electrofusion fitting.				
Polypropylene Random Co-Polymer (PPR) in accordance with SAN	IS			
15874 Part 3. Pressure rating SDR 7.4 or Pipe series S 3.2				
rressure rating 5DN 7.4 or ripe series 5 5.2				
1.8.1 outside dia 20	No	16	R	
1.8.2 outside dia 25	No	8	R	R
1.9.2 putside die 22	R1 -		D.	D.
1.8.3 outside dia 32	No	6	R	R
1.8.4 outside dia 63	No	10	R	R
1,9 Male adaptor				

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.9.1	outside dia 20	No	4	R	R
1.0.2	autoida dia 40	NI-	4	D	D
1.9.2	outside dia 40	No	4	R	R
1.9.3	outside dia 63	No	4	R	R
1.5.5	outside did 65	140	-	N.	IX.
1.10	Isolating Valves:				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
4.0.	1.11 1.20				
1.10.1	outside dia 20	No	50	R	R
1,11	Non return valves:				
1,11	Electrofusion fitting.		-		
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
	·				
1.11.1	outside dia 20	No	15	R	R
1.11.2	outside dia 25	No	10	R	R
4.42					
1,12	Strainers: Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
	·				
1.12.1	outside dia 20	No	10	R	R
1.12.2	outside dia 40	No	1	R	R
			<u> </u>		
1,13	Thermaflex Pipe Insulation Thermaflex insulation				
	THEITHAITEX ITISUIALION				
1.13.1	outside dia 20	No	80	R	R
1.13.1	0.000 did 20	140	- 55	· · ·	••
1.13.2	outside dia 25	No	30	R	R
1.13.3	outside dia 32	No	30	R	R
2	PIPING - GALVANIZED				
	FOLUM AFAIR				
3	EQUIPMENT				
2 1	Hoat Dumne				
3,1	Heat Pumps		l		

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	Supply install and commission Heat Pumps complete with flat plate				
	solar collector recirculation pumps for solar system and solar				
	system.				
	Include 10mm of PP-R piping insulation, 2-off 20mm vacuum				
	breakers, 15mm expansion relief valve, lever ball valves, mixing				
	valve, temperature differential controller, hot water pipe insulation				
	and truss strengthening where required. Units to be SANS 1037 and				
	SANS 151 with Certificate. Carry a 10 Year warranty. Pressure rating				
	of 400 kPa.				
3.1.1	Hostel Type 1A - Boys - Upper Primary - 1 X 17kW HP for both				
3.1.1	Sanitary and UFH	No	1	R	R
	Sameary and or m	110		IX.	, N
3,2	Heat Pump and Geyser Tanks				
	Supply and Install Hot Water Storage Tanks for Sanitary Use and				
	Underflow Heatings as per the specifications				
3.2.1	Type 1A Hostel - Lower Primary Boys - 2000L Tank linked to Geyser				
0.2.2	for sanitary Boys	No	4	R	R
3,3	Solar panels				
	Suppy and install ITS Solar Panels 2.4m2 FT for the Heat Pump				
	Systems				
3.3.3	Type 1A - Lower Primary Boys- solar panels, ITS 2.4m2 FT or				
	equivalent	No	10	R	R
3,4	Recirculation Pumps				
3.4.1	Hostel Type 1A- Boys Lower Primary - HP Hotwater Recirculation				
	pumps and Solar Recirculation pump including , air releave valve &				
	loading valve	No	2	R	R
3,5	Rain Water Harvesting Tanks				
	Supply install and commission Rain Water harvesting tanks and				
	assesories. The tanks shall be installed on 200mm concrete platfrom				
	with a tap for garden use connection				
			-		
3.5.1	Hostel Type 1A Boys-Lower Primary - 5000L Jojo Tanks and	N1 -	4	_	_
	Accessories with a tap to be used for garden services	No	1	R	R
			1		
			<del> </del>		
			+		
			+		
			1		
			1		
n l	RIED BLOCK 6 FORWARD TO SUMMARY				R

- 1 This Bill of Quantities forms part of the contract documents and is to be read in conjunction therewith.
- 2 All works billed here shall include for the full scope of service specified including but not limited to supply, delivery, installation,
- Quantities indicated here are to be verified by the contractor against the project drawings. All discrepancies shall be brought to the attention of the responsible engineer. Should no queries be raised the contract totals and rates provided shall be deemed
- 4 No variation in rates shall be due based on variation in quantities, rate of exchange or escalation.
- 5 Errors and omissions of equipment or material required to execute the project solution specified or indicated on the drawings
- 6 All works required to execute the scope of works in accordance with the project program and quality requirements are deemed
- 7 Rates provided shall include for fixing, hangers, fittings, transformations, sealant and all other items required to deliver a
- 8 The bill of quantities shall not be used as the basis for material order.
- 9 The values here shall be entered in South African Rands and exclusive of VAT.

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	DI COME TYPE OF DOMO HOUTE				
	BLOCK 7 - TYPE 2A BOYS HOSTEL				
1	PIPING PP-R (Polypropolyne)		<u> </u>		
_	The state of the s				
1,1	PP-R Pipe:				
	Hot and Cold Water Piping.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 2. Pressure rating SDR 7.4 or Pipe series S 3.2				
	riessure rating 3DN 7.4 or ripe series 3 3.2				
1.1.1	outside dia 20	m	120	R	R
1.1.2	outside dia 25	m	40	R	R
				_	
1.1.3	outside dia 40	m	20	R	R
1.1.4	outside dia 50	m	10	R	R
1.1.4	outside did 50		10		· ·
1,2	Bends 90 deg				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.2.1	outside dia 20	No	80	R	R
1.2.2	outside dia 25	No	30	R	R
1.2.3	outside dia 32	No	20	R	R
1.2.4	outside dia 40	No	15	R	R
1.2.4	outside dia 40	110	15	K	, and the second
1,3	Tee equal				
·	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2		+		
1.3.1	outside dia 20	No	30	R	R
2.5.1		.,,	1 30	<u> </u>	
1.3.2	outside dia 25	No	15	R	R
				R	R
1.3.3	outside dia 40	No	10	R	R
1.4	Too wade sing		1		
1,4	Tee reducing				

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3. Pressure rating SDR 7.4 or Pipe series S 3.2				
	Pressure rating 3DK 7.4 or Pipe series 3 5.2				
1.4.1	outside diam 25 x 20	No	15	R	R
1.4.2	outside diam 32 x 20	No	5	R	R
1,5	Reducer concentric				
1,5	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
					_
1.5.1	outside diam 25 x 20	No	20	R	R
1.5.4	outside diam 40 x 20	No	10	R	R
1.5.4	Second diditi 10 A 20	110	10	<u> </u>	
1,6	Union screwed				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.6.1	outside dia 20	No	10	R	R
1.6.2	outside dia 25	No	10	R	R
1.7	Coalica				
1,7	Socket Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
				_	_
1.7.1	outside dia 20	No	10	R	R
1.7.2	outside dia 25	No	10	R	R
1.7.2	Sacrate did 25	140	10	••	
1.7.3	outside dia 32	No	6	R	R
1,8	Female adaptor Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.8.1	outside dia 20	No	16	R	R
107	autsida dia 25	No	0	R	R
1.8.2	outside dia 25	No	8	ĸ	n.
1.8.3	outside dia 32	No	6	R	R
1.8.4	outside dia 63	No	10	R	R
			ļ		
1.9	Male adaptor				

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3. Pressure rating SDR 7.4 or Pipe series S 3.2				
	rressure rating 3DN 7.4 or ripe series 3.3.2				
1.9.1	outside dia 20	No	4	R	R
1.9.2	outside dia 25	No	2	R	R
1.0.2	autoida dia 40	N-	4	В	D
1.9.3	outside dia 40	No	4	R	R
1.9.6	outside dia 63	No	4	R	R
1.10	Isolating Valves:				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3. Pressure rating SDR 7.4 or Pipe series S 3.2				
	r ressure ruting 3DN 7.4 or r spe series 3 3.2				
1.10.1	outside dia 20	No	50	R	R
1.10.2	outside dia 25	No	1	R	R
1,11	Non return valves:				
1,11	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series \$ 3.2				
1.11.1	outside dia 20	No	15	R	R
1.11.2	outside dia 25	No	10	R	R
	outside did 25	110	10		
1,12	Strainers:				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3. Pressure rating SDR 7.4 or Pipe series S 3.2				
	Pressure rating 5DR 7.4 or Pipe series 5 3.2				
1.12.1	outside dia 20	No	10	R	R
1.12.2	outside dia 40	No	1	R	R
4.45					
1,13	Thermaflex Pipe Insulation Thermaflex insulation				
	THE III ALEX III SUI ALIOII				
1.13.1	outside dia 20	No	80	R	R
1.13.2	outside dia 25	No	30	R	R
1.12.2	and the dis-	N:	20		
1.13.3	outside dia 32	No	30	R	R
2	PIPING - GALVANIZED				
	The state of the s				
3	EQUIPMENT				
3,1	Heat Pumps				

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	Supply install and commission Heat Pumps complete with flat plate				
	solar collector recirculation pumps for solar system and solar				
	system.				
	Include 10mm of PP-R piping insulation, 2-off 20mm vacuum				
	breakers, 15mm expansion relief valve, lever ball valves, mixing				
	valve, temperature differential controller, hot water pipe insulation				
	and truss strengthening where required. Units to be SANS 1037 and				
	SANS 151 with Certificate. Carry a 10 Year warranty. Pressure rating				
	of 400 kPa.	<u> </u>			
3.1.5	Hostel Type 2A - Boys - Upper Primary - 2 x 17kW HP for both				
	Sanitary and UFH	No	2	R	R
		<u> </u>			
3,2	Heat Pump and Geyser Tanks	<del> </del>			
	Supply and Install Hot Water Storage Tanks for Sanitary Use and				
	Underflow Heatings as per the specifications	<del></del>			
3.2.5	Type 2 Hostel Upper Primary Boys - 2x 2000L Tank linked to Heat	١			
	Pump for Sanitary Use	No	1	R	R
3,3	Solar panels				
3,3	Suppy and install ITS Solar Panels 2.4m2 FT for the Heat Pump				
	Systems				
3.3.1	Type 2A - Upper Primary Boys- solar panels, ITS 2.4m2 FT or				
0.0.2	equivalent	No	10	R	R
3,4	Recirculation Pumps				
3.4.5	Hostel Type 2A- Boys Upper Primary - HP Hotwater Recirculation				
	pumps and Solar Recirculation pump including , air releave valve &				
	loading valve	No	2	R	R
3,5	Rain Water Harvesting Tanks				
	Supply install and commission Rain Water harvesting tanks and				
	assesories. The tanks shall be installed on 200mm concrete platfrom				
	with a tap for garden use connection				
3.5.10	Hostel Type 2A Boys-Upper Primary - 5000L Jojo Tanks and				
	Accessories with a tap to be used for garden services	No	1	R	R
		<del>                                     </del>			
TOTAL CAS	DIFD DIOCK 7 FORWARD TO CHAMPAPRY				D.
TOTAL CAR	RRIED BLOCK 7 FORWARD TO SUMMARY				R

- 1 This Bill of Quantities forms part of the contract documents and is to be read in conjunction therewith.
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- Quantities indicated here are to be verified by the contractor against the project drawings. All discrepancies shall be brought to the attention of the responsible engineer. Should no queries be raised the contract totals and rates provided shall be deemed
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- 5 Errors and omissions of equipment or material required to execute the project solution specified or indicated on the drawings
- 6 All works required to execute the scope of works in accordance with the project program and quality requirements are deemed
- 7 Rates provided shall include for fixing, hangers, fittings, transformations, sealant and all other items required to deliver a
- 8 The bill of quantities shall not be used as the basis for material order.
- 9 The values here shall be entered in South African Rands and exclusive of VAT.

BIOCK 8 - TYPE 2A BOYS HOSTEL	ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
1,1 PP-R Pipe: Hot and Cold Water Piping. Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 2. Pressure rating SDR 7.4 or Pipe series S 3.2  1.1.1 outside dia 20 m 120 R R R  1.1.2 outside dia 40 m 20 R R  1.1.4 outside dia 55 m 40 R R  1.1.5 electrofusion fitting. Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3. Pressure rating SDR 7.4 or Pipe series S 3.2  1.2 butside dia 50 m 10 R R  1.2.1 outside dia 50 m 10 R R  1.2.2 outside dia 25 m 10 R R  1.2.3 outside dia 25 m 10 R R  1.2.4 outside dia 25 m 10 R R  1.2.5 outside dia 25 m 10 R R  1.2.6 outside dia 25 m 10 R R  1.2.7 outside dia 25 m 10 R R  1.2.8 outside dia 25 m 15 R R  1.3 Tee equal Electrofusion fitting. Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3. Pressure rating SDR 7.4 or Pipe series S 3.2  1.3.1 outside dia 40 m 15 R R  1.3.3 outside dia 40 m 15 R R  1.3.4 outside dia 20 m 15 R R  1.3.5 outside dia 20 m 15 R R  1.3.6 outside dia 20 m 15 R R  1.3.7 Tee equal 1.3.8 outside dia 20 m 10 R R						
1,1         PP-R Pipe:           Hot and Cold Water Piping.         Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 2.           1,2         Pressure rating SDR 7.4 or Pipe series S 3.2           1.1.1         outside dia 25         m         120         R         R           1.1.2         outside dia 25         m         40         R         R           1.1.3         outside dia 40         m         20         R         R           1.1.4         outside dia 50         m         10         R         R           1.2         Bends 90 deg         Electrofusion fitting.         Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3.         Pressure rating SDR 7.4 or Pipe series S 3.2           1.2.1         outside dia 20         No         80         R         R           1.2.2         outside dia 32         No         20         R         R           1.2.3         outside dia 40         No         15         R         R           1.3         Tee equal         Electrofusion fitting.         Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3.         Pressure rating SDR 7.4 or Pipe series S 3.2           1.3.1         outside dia 20         No         30         R		BLOCK 8 - TYPE 2A BOYS HOSTEL				
1,1         PP-R Pipe:           Hot and Cold Water Piping.         Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 2.           1,2         Pressure rating SDR 7.4 or Pipe series S 3.2           1.1.1         outside dia 25         m         120         R         R           1.1.2         outside dia 25         m         40         R         R           1.1.3         outside dia 40         m         20         R         R           1.1.4         outside dia 50         m         10         R         R           1.2         Bends 90 deg         Electrofusion fitting.         Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3.         Pressure rating SDR 7.4 or Pipe series S 3.2           1.2.1         outside dia 20         No         80         R         R           1.2.2         outside dia 32         No         20         R         R           1.2.3         outside dia 40         No         15         R         R           1.3         Tee equal         Electrofusion fitting.         Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3.         Pressure rating SDR 7.4 or Pipe series S 3.2           1.3.1         outside dia 20         No         30         R						
Hot and Cold Water Piping.   Polypropylene Random Co-Polymer (PPR) in accordance with SANS   15874 Part 2.   Pressure rating SDR 7.4 or Pipe series S 3.2	1	PIPING PP-R (Polypropolyne)				
Hot and Cold Water Piping.   Polypropylene Random Co-Polymer (PPR) in accordance with SANS   15874 Part 2.   Pressure rating SDR 7.4 or Pipe series S 3.2						
Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 2.   Pressure rating SDR 7.4 or Pipe series 5 3.2	1,1					
1.5874 Part 2.   Pressure rating SDR 7.4 or Pipe series S 3.2						
Pressure rating SDR 7.4 or Pipe series S 3.2  1.1.1 outside dia 20						
1.1.1 outside dia 20						
1.1.2 outside dia 25		Pressure rating SDR 7.4 or Pipe series \$ 3.2				
1.1.2 outside dia 25	1 1 1	outsido dia 20	m	120	D	D
1.1.3 outside dia 40	1.1.1	outside dia 20	- '''	120	IX.	K
1.1.3 outside dia 40	1.1.2	outside dia 25	m	40	R	R
1.1.4 outside dia 50						
1,2       Bends 90 deg	1.1.3	outside dia 40	m	20	R	R
1,2       Bends 90 deg						
Electrofusion fitting. Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3. Pressure rating SDR 7.4 or Pipe series S 3.2  1.2.1 outside dia 20	1.1.4	outside dia 50	m	10	R	R
Electrofusion fitting. Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3. Pressure rating SDR 7.4 or Pipe series S 3.2  1.2.1 outside dia 20						
Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3. Pressure rating SDR 7.4 or Pipe series S 3.2  1.2.1 outside dia 20	1,2					
15874 Part 3. Pressure rating SDR 7.4 or Pipe series S 3.2  1.2.1 outside dia 20  No 80 R R  R  1.2.2 outside dia 25  No 30 R R  R  1.2.3 outside dia 32  No 20 R R  R  1.2.4 outside dia 40  No 15 R R  Electrofusion fitting. Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3. Pressure rating SDR 7.4 or Pipe series S 3.2  1.3.1 outside dia 20  No 30 R R  R  1.3.2 outside dia 20  No 30 R R  R						
Pressure rating SDR 7.4 or Pipe series \$ 3.2       No       80       R       R         1.2.1 outside dia 20       No       80       R       R         1.2.2 outside dia 25       No       30       R       R         1.2.3 outside dia 32       No       20       R       R         1.2.4 outside dia 40       No       15       R       R         1.3 Tee equal       Electrofusion fitting.         Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3.       Pressure rating SDR 7.4 or Pipe series \$ 3.2       R       R         1.3.1 outside dia 20       No       30       R       R         1.3.2 outside dia 25       No       15       R       R         1.3.3 outside dia 40       No       10       R       R						
1.2.1 outside dia 20						
1.2.2 outside dia 25		Pressure rating SDR 7.4 or Pipe series S 3.2				
1.2.2 outside dia 25	1 2 1	outside die 20	No	90	D	Ь
1.2.3       outside dia 32       No       20       R       R         1.2.4       outside dia 40       No       15       R       R         1,3       Tee equal       Electrofusion fitting.         Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3.       Pressure rating SDR 7.4 or Pipe series S 3.2         1.3.1       outside dia 20       No       30       R       R         1.3.2       outside dia 25       No       15       R       R         1.3.3       outside dia 40       No       10       R       R	1.2.1	outside dia 20	INO	80	ĸ	K
1.2.3       outside dia 32       No       20       R       R         1.2.4       outside dia 40       No       15       R       R         1,3       Tee equal       Electrofusion fitting.         Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3.       Pressure rating SDR 7.4 or Pipe series S 3.2         1.3.1       outside dia 20       No       30       R       R         1.3.2       outside dia 25       No       15       R       R         1.3.3       outside dia 40       No       10       R       R	122	outside dia 25	Nο	30	R	R
1.2.4 outside dia 40 No 15 R R  1,3 Tee equal Electrofusion fitting. Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3. Pressure rating SDR 7.4 or Pipe series S 3.2  1.3.1 outside dia 20 No 30 R R  1.3.2 outside dia 25 No 15 R R  1.3.3 outside dia 40 No 10 R R						
1,3 Tee equal  Electrofusion fitting. Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3. Pressure rating SDR 7.4 or Pipe series S 3.2  1.3.1 outside dia 20  No 30 R  R  1.3.2 outside dia 25  No 15 R  R  1.3.3 outside dia 40  No 10 R  R	1.2.3	outside dia 32	No	20	R	R
1,3 Tee equal  Electrofusion fitting. Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3. Pressure rating SDR 7.4 or Pipe series S 3.2  1.3.1 outside dia 20  No 30 R  R  1.3.2 outside dia 25  No 15 R  R  1.3.3 outside dia 40  No 10 R  R						
Electrofusion fitting. Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3. Pressure rating SDR 7.4 or Pipe series S 3.2  1.3.1 outside dia 20 No 30 R R  1.3.2 outside dia 25 No 15 R R  1.3.3 outside dia 40 No 10 R R	1.2.4	outside dia 40	No	15	R	R
Electrofusion fitting. Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3. Pressure rating SDR 7.4 or Pipe series S 3.2  1.3.1 outside dia 20 No 30 R R  1.3.2 outside dia 25 No 15 R R  1.3.3 outside dia 40 No 10 R R						
Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3. Pressure rating SDR 7.4 or Pipe series S 3.2  1.3.1 outside dia 20 No 30 R R  1.3.2 outside dia 25 No 15 R R  1.3.3 outside dia 40 No 10 R R	1,3					
15874 Part 3. Pressure rating SDR 7.4 or Pipe series S 3.2  1.3.1 outside dia 20  No 30 R  R  1.3.2 outside dia 25  No 15 R  R  1.3.3 outside dia 40  No 10 R  R						
Pressure rating SDR 7.4 or Pipe series \$ 3.2  1.3.1 outside dia 20  No 30 R  R  1.3.2 outside dia 25  No 15 R  R  1.3.3 outside dia 40  No 10 R  R		1 '' '				
1.3.1 outside dia 20						
1.3.2 outside dia 25 No 15 R R  1.3.3 outside dia 40 No 10 R R		Pressure rating SDR 7.4 or Pipe series \$ 3.2				
1.3.2 outside dia 25 No 15 R R  1.3.3 outside dia 40 No 10 R R	1 2 1	outsido dia 20	No	20	P	D
1.3.3 outside dia 40 No 10 R R	1.3.1	Journal of the Contro	INO	30	n	N.
1.3.3 outside dia 40 No 10 R R	1.3.2	outside dia 25	Nο	15	R	R
	1.3.3	outside dia 40	No	10	R	R
1,4 Tee reducing						
	1,4	Tee reducing				

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3. Pressure rating SDR 7.4 or Pipe series S 3.2				
	Pressure rating 3DK 7.4 or Pipe series 3 5.2				
1.4.1	outside diam 25 x 20	No	15	R	R
1.4.2	outside diam 32 x 20	No	5	R	R
1,5	Reducer concentric				
1,5	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
					_
1.5.1	outside diam 25 x 20	No	20	R	R
1.5.4	outside diam 40 x 20	No	10	R	R
1.5.4	Second diditi 10 A 20	110	10	<u> </u>	
1,6	Union screwed				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.6.1	outside dia 20	No	10	R	R
1.6.2	outside dia 25	No	10	R	R
1.7	Coalica				
1,7	Socket Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
				_	_
1.7.1	outside dia 20	No	10	R	R
1.7.2	outside dia 25	No	10	R	R
1.7.2	Sacrate did 25	140	10	••	
1.7.3	outside dia 32	No	6	R	R
1,8	Female adaptor Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.8.1	outside dia 20	No	16	R	R
107	autsida dia 25	No	0	R	R
1.8.2	outside dia 25	No	8	ĸ	n.
1.8.3	outside dia 32	No	6	R	R
1.8.4	outside dia 63	No	10	R	R
			ļ		
1.9	Male adaptor				

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3. Pressure rating SDR 7.4 or Pipe series S 3.2				
	rressure rating 3DN 7.4 or ripe series 3.3.2				
1.9.1	outside dia 20	No	4	R	R
1.9.2	outside dia 25	No	2	R	R
1.0.2	autoida dia 40	N-	4	ь	D
1.9.3	outside dia 40	No	4	R	R
1.9.6	outside dia 63	No	4	R	R
1.10	Isolating Valves:				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3. Pressure rating SDR 7.4 or Pipe series S 3.2				
	r ressure ruting 3DN 7.4 or r spe series 3 3.2				
1.10.1	outside dia 20	No	50	R	R
1.10.2	outside dia 25	No	1	R	R
1,11	Non return valves:				
1,11	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series \$ 3.2				
1.11.1	outside dia 20	No	15	R	R
1.11.2	outside dia 25	No	10	R	R
	outside did 25	110	10		
1,12	Strainers:				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3. Pressure rating SDR 7.4 or Pipe series S 3.2				
	Pressure rating 5DR 7.4 or Pipe series 5 3.2				
1.12.1	outside dia 20	No	10	R	R
1.12.2	outside dia 40	No	1	R	R
4.45					
1,13	Thermaflex Pipe Insulation Thermaflex insulation				
	THE III ALEX III SUI ALIOII				
1.13.1	outside dia 20	No	80	R	R
1.13.2	outside dia 25	No	30	R	R
1.12.2	and the discount	N:	20		
1.13.3	outside dia 32	No	30	R	R
2	PIPING - GALVANIZED				
	The state of the s				
3	EQUIPMENT				
3,1	Heat Pumps				

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	Supply install and commission Heat Pumps complete with flat plate				
	solar collector recirculation pumps for solar system and solar				
	system.				
	Include 10mm of PP-R piping insulation, 2-off 20mm vacuum				
	breakers, 15mm expansion relief valve, lever ball valves, mixing				
	valve, temperature differential controller, hot water pipe insulation				
	and truss strengthening where required. Units to be SANS 1037 and				
	SANS 151 with Certificate. Carry a 10 Year warranty. Pressure rating				
	of 400 kPa.				
3.1.5	Hostel Type 2A - Boys - Upper Primary - 2 x 17kW HP for both				
	Sanitary and UFH	No	2	R	R
3,2	Heat Pump and Geyser Tanks				
	Supply and Install Hot Water Storage Tanks for Sanitary Use and				
225	Underflow Heatings as per the specifications				
3.2.5	Type 2 Hostel Upper Primary Boys - 2x 2000L Tank linked to Heat Pump for Sanitary Use	No	1	R	R
	Pump for Samilary Ose	INO	1	N.	N .
3,3	Solar panels				
3,3	Suppy and install ITS Solar Panels 2.4m2 FT for the Heat Pump				
	Systems				
3.3.1	Type 2A - Upper Primary Boys- solar panels, ITS 2.4m2 FT or				
	equivalent	No	10	R	R
3,4	Recirculation Pumps				
3.4.5	Hostel Type 2A- Boys Upper Primary - HP Hotwater Recirculation				
	pumps and Solar Recirculation pump including , air releave valve &				
	loading valve	No	2	R	R
3,5	Rain Water Harvesting Tanks				
	Supply install and commission Rain Water harvesting tanks and				
	assesories. The tanks shall be installed on 200mm concrete platfrom				
3.5.10	with a tap for garden use connection  Hostel Type 2A Boys-Upper Primary - 5000L Jojo Tanks and				
	Accessories with a tap to be used for garden services	No	1	R	R
	Accessories with a tap to be used for garden services	NO	1	N.	N .
TOTAL CAR	RIED BLOCK 8 FORWARD TO SUMMARY				R

- 1 This Bill of Quantities forms part of the contract documents and is to be read in conjunction therewith.
- 2 All works billed here shall include for the full scope of service specified including but not limited to supply, delivery,
- Quantities indicated here are to be verified by the contractor against the project drawings. All discrepancies shall be brought to the attention of the responsible engineer. Should no queries be raised the contract totals and rates provided shall be
- 4 No variation in rates shall be due based on variation in quantities, rate of exchange or escalation.
- 5 Errors and omissions of equipment or material required to execute the project solution specified or indicated on the drawings
- 6 All works required to execute the scope of works in accordance with the project program and quality requirements are
- Rates provided shall include for fixing, hangers, fittings, transformations, sealant and all other items required to deliver a
- 8 The bill of quantities shall not be used as the basis for material order.
- 9 The values here shall be entered in South African Rands and exclusive of VAT.

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	BLOCK 9 - TV ROOM				
_					
1	PIPING PP-R (Polypropolyne)				
11	DD D Divers				
1,1	PP-R Pipe: Hot and Cold Water Piping.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 2.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
	1 ressure ruting 35K 7.4 or ripe series 3 3.2				
1.1.1	outside dia 20	m	10	R	R
1.1.2	outside dia 25	m	5	R	R
1,2	Bends 90 deg				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.2.1	outside dia 20	No	8	R	R
4.2.2	- Marida dia 25	N1 -			
1.2.2	outside dia 25	No	4	R	R
1,3	Tee equal				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.3.1	outside dia 20	No	2	R	R
1.3.2	outside dia 25	No	2	R	R
1,4	Tee reducing				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
4.4.4	and the diam of a go	<b>A</b> :			
1.4.1	outside diam 25 x 20	No	2	R	R

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
1.4.2	outside diam 32 x 20	No	1	R	R
1,5	Reducer concentric				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.5.1	outside diam 25 x 20	No	2	R	R
1.5.2	outside diam 32 x 20	No	1	R	R
1,6	Union screwed				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.6.1	outside dia 20	No	5	R	R
			_		_
1.6.2	outside dia 25	No	2	R	R
1,7	Socket				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.7.1	outside dia 20	No		R	D
1.7.1	outside dia 20	No	5	ĸ	R
1.7.2	outside dia 25	No	3	R	R
1.7.2	outside did 25	INO	3	K	N.
1.7.3	outside dia 32	No	1	R	R
1.7.5	outside dia 32	110		K	K
1,8	Female adaptor				
1,0	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
					1
1.8.1	outside dia 20	No	3	R	R
				-	† -
1.8.2	outside dia 25	No	3	R	R
<u> </u>					
1.8.3	outside dia 32	No	1	R	R
1,9	Male adaptor				
,	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				1
	15874 Part 3.				1
	Pressure rating SDR 7.4 or Pipe series S 3.2				1
1.9.1	outside dia 20	No	3	R	R
<u> </u>			1		1

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
1.9.2	outside dia 25	No	3	R	
-					
1.10	Isolating Valves:				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.10.1	outside dia 20	No	2	R	R
1.10.2	outside dia 25	No	2	R	R
1,11	Non return valves:				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.11.1	outside dia 20	No	2	R	R
1.11.1	outside dia 20	No		ĸ	K
1.11.2	outside dia 25	No	1	R	R
1.11.2	outside dia 23	INO	1	K	K
1,12	Strainers:		<u> </u>		
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.12.1	outside dia 20	No	2	R	R
1,13	Thermaflex Pipe Insulation				
	Thermaflex insulation				
1.13.1	outside dia 20	No	10	R	R
			<u> </u>	_	1_
1.13.2	outside dia 25	No	5	R	R
	FOLUDATAIT				
2	EQUIPMENT		1		+
2,1	Hot Water Heaters				+
۷,1	not water neaters				
2.1.1	10 litre underbasin electric water heater.	No	2	R	R
2.1.1	25 and 5 under susain electric water fleater.	140	<del>                                     </del>	.,	
					1

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
TOTAL BLO	TOTAL BLOCK 9 CARRIED FORWARD TO SUMMARY				

- 1 This Bill of Quantities forms part of the contract documents and is to be read in conjunction therewith.
- 2 All works billed here shall include for the full scope of service specified including but not limited to supply, delivery, installation,
- Quantities indicated here are to be verified by the contractor against the project drawings. All discrepancies shall be brought to the attention of the responsible engineer. Should no queries be raised the contract totals and rates provided shall be deemed
- 4 No variation in rates shall be due based on variation in quantities, rate of exchange or escalation.
- 5 Errors and omissions of equipment or material required to execute the project solution specified or indicated on the drawings
- 6 All works required to execute the scope of works in accordance with the project program and quality requirements are deemed
- 7 Rates provided shall include for fixing, hangers, fittings, transformations, sealant and all other items required to deliver a
- 8 The bill of quantities shall not be used as the basis for material order.
- 9 The values here shall be entered in South African Rands and exclusive of VAT.

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	BLOCK 10 - TYPE 1A BOYS				
1	PIPING PP-R (Polypropolyne)				
	i ii ii da i i -k (i diypropolyne)				
1,1	PP-R Pipe:				
	Hot and Cold Water Piping.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 2.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.1.1	outside dia 20	m	120	R	R
1.1.2	outside dia 25	m	40	R	R
112	Leader to 40		20		
1.1.3	outside dia 40	m	20	R	R
1.1.4	outside dia 50	m	10	R	R
1,2	Bends 90 deg				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3. Pressure rating SDR 7.4 or Pipe series S 3.2				
	ressure ruting 55N 7.4 or ripe series 5 5.2				
1.2.1	outside dia 20	No	80	R	R
1.2.2	outside dia 25	No	30	R	R
1.2.3	outside dia 32	No	20	R	R
1.2.5	outside dia 32	NO	20	IN .	K
1.2.4	outside dia 40	No	15	R	R
1,3	Tee equal		<del> </del>		
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.3.1	outside dia 20	No	30	R	R
422					1_
1.3.2	outside dia 25	No	15	R	R
1.3.3	outside dia 40	No	10	R	R
	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -		1		-
1,4	Tee reducing				

Electrofusion fitting. Polypropylene Random Co-Polymer (PPR) in accordance with SAN		1		
Polypropylene Random Co-Polymer (PPR) in accordance with SAN				
	IS			
15874 Part 3. Pressure rating SDR 7.4 or Pipe series S 3.2				
Tressure rating 5DN 7.4 of Tipe Series 5.5.2				
1.4.1 outside diam 25 x 20	No	15	R	R
1.4.2 outside diam 32 x 20	No	5	R	R
1,5 Reducer concentric				
Electrofusion fitting.				
Polypropylene Random Co-Polymer (PPR) in accordance with SAN	IS			
15874 Part 3.				
Pressure rating SDR 7.4 or Pipe series S 3.2				
1.5.1 outside diam 25 x 20	No	20	R	R
1.5.1   Outside diam 25 x 20	INO	20	ĸ	ĸ
1.5.2 outside diam 40 x 20	No	10	R	R
1,6 Union screwed				
Electrofusion fitting.	ıc			
Polypropylene Random Co-Polymer (PPR) in accordance with SAN 15874 Part 3.	15			
Pressure rating SDR 7.4 or Pipe series S 3.2				
1.6.1 outside dia 20	No	10	R	R
		_		
1.6.2 outside dia 25	No	10	R	R
1.6.3 outside dia 32	No	10	R	R
1,7 Socket				
Electrofusion fitting.				
Polypropylene Random Co-Polymer (PPR) in accordance with SAN 15874 Part 3.	15			
Pressure rating SDR 7.4 or Pipe series S 3.2				
The source running out with on a high source of the				
1.7.1 outside dia 20	No	10	R	R
1.7.2 outside dia 25	No	10	R	R
1.7.3 outside dia 32	No	6	R	R
2.7.5 Judiside did 52	140		••	
1,8 Female adaptor				
Electrofusion fitting.				
Polypropylene Random Co-Polymer (PPR) in accordance with SAN	IS			
15874 Part 3. Pressure rating SDR 7.4 or Pipe series S 3.2				
rressure rating 5DN 7.4 or ripe series 5 5.2				
1.8.1 outside dia 20	No	16	R	
1.8.2 outside dia 25	No	8	R	R
1.9.2 posteido dia 22	R1 -		D.	D.
1.8.3 outside dia 32	No	6	R	R
1.8.4 outside dia 63	No	10	R	R
1,9 Male adaptor				

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.9.1	outside dia 20	No	4	R	R
1.9.2	outside dia 40	No	4	R	R
100			_	_	
1.9.3	outside dia 63	No	4	R	R
1.10	Isolating Valves:				
1.10	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.10.1	outside dia 20	No	50	R	R
1,11	Non return valves:				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1 11 1		NI -	45		
1.11.1	outside dia 20	No	15	R	R
1.11.2	outside dia 25	No	10	R	R
1.11.2	outside dia 25	INO	10	N.	IX.
1,12	Strainers:				
,	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.12.1	outside dia 20	No	10	R	R
					_
1.12.2	outside dia 40	No	1	R	R
1,13	Thermaflex Pipe Insulation				
1,13	Thermaflex insulation  Thermaflex insulation				
	Thermanex insulation				
1.13.1	outside dia 20	No	80	R	R
			30		
1.13.2	outside dia 25	No	30	R	R
1.13.3	outside dia 32	No	30	R	R
3	EQUIPMENT				
21	Hook Durane				
3,1	Heat Pumps				

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	Supply install and commission Heat Pumps complete with flat plate				
	solar collector recirculation pumps for solar system and solar				
	system.				
	Include 10mm of PP-R piping insulation, 2-off 20mm vacuum				
	breakers, 15mm expansion relief valve, lever ball valves, mixing				
	valve, temperature differential controller, hot water pipe insulation				
	and truss strengthening where required. Units to be SANS 1037 and				
	SANS 151 with Certificate. Carry a 10 Year warranty. Pressure rating				
	of 400 kPa.				
211					
3.1.1	Hostel Type 1A - Boys - Upper Primary - 1 X 17kW HP for both				_
	Sanitary and UFH	No	1	R	R
2.2	Heat Buren and Causer Taulia				
3,2	Heat Pump and Geyser Tanks				
	Supply and Install Hot Water Storage Tanks for Sanitary Use and Underflow Heatings as per the specifications				
3.2.1	Type 1A Hostel - Lower Primary Boys - 2000L Tank linked to Geyser				
3.2.1	for sanitary Boys	No	4	R	R
	ioi saiitary boys	NO	4	K	IX.
3,3	Solar panels				
-,-	Suppy and install ITS Solar Panels 2.4m2 FT for the Heat Pump				
	Systems				
3.3.3	Type 1A - Lower Primary Boys- solar panels, ITS 2.4m2 FT or				
	equivalent	No	10	R	R
3,4	Recirculation Pumps				
3.4.1	Hostel Type 1A- Boys Lower Primary - HP Hotwater Recirculation				
	pumps and Solar Recirculation pump including , air releave valve &				
	loading valve	No	2	R	R
_					
3,5	Rain Water Harvesting Tanks				
	Supply install and commission Rain Water harvesting tanks and				
	assesories. The tanks shall be installed on 200mm concrete platfrom				
2.5.4	with a tap for garden use connection				
3.5.1	Hostel Type 1A Boys-Lower Primary - 5000L Jojo Tanks and	No	1	R	R
	Accessories with a tap to be used for garden services	NO	1	N .	N.
	RRIED BLOCK 10 FORWARD TO SUMMARY				R

- 1 This Bill of Quantities forms part of the contract documents and is to be read in conjunction therewith.
- 2 All works billed here shall include for the full scope of service specified including but not limited to supply, delivery, installation,
- Quantities indicated here are to be verified by the contractor against the project drawings. All discrepancies shall be brought to the attention of the responsible engineer. Should no queries be raised the contract totals and rates provided shall be deemed
- 4 No variation in rates shall be due based on variation in quantities, rate of exchange or escalation.
- 5 Errors and omissions of equipment or material required to execute the project solution specified or indicated on the drawings
- 6 All works required to execute the scope of works in accordance with the project program and quality requirements are deemed
- 7 Rates provided shall include for fixing, hangers, fittings, transformations, sealant and all other items required to deliver a
- 8 The bill of quantities shall not be used as the basis for material order.
- 9 The values here shall be entered in South African Rands and exclusive of VAT.

BLOCK 11 - TYPE 1A BOYS	ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
1.1 PPIPING PP-R (Polypropolyne) 1.1 PP-R Pipe: Hot and Cold Water Piping. Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 2. Pressure rating SDR 7.4 or Pipe series 5 3.2  1.1.1 outside dia 20 m 120 R R 1.1.2 outside dia 25 m 40 R 1.1.3 outside dia 40 m 20 R R 1.1.4 outside dia 40 m 20 R R 1.1.5 Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3. Pressure rating SDR 7.4 or Pipe series S 3.2  1.2.1 outside dia 50 m 10 R R 1.2.2 outside dia 25 m 8 R 1.2.3 outside dia 25 No 30 R R 1.2.4 outside dia 32 No 20 R R 1.2.5 Pressure rating SDR 7.4 or Pipe series S 3.2  1.2.1 outside dia 32 No 30 R R 1.2.3 outside dia 40 No 15 R R 1.3.3 Tee equal Electrofusion fitting. Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3. Pressure rating SDR 7.4 or Pipe series S 3.2						
1,1   PP-R Pipe:		BLOCK 11 - TYPE 1A BOYS				
1,1   PP-R Pipe:	1	PIPING PP-R (Polypropolyne)				
Hot and Cold Water Piping.   Polypropylene Random Co-Polymer (PPR) in accordance with SANS   15874 Part 2.   Pressure rating SDR 7.4 or Pipe series S 3.2		i ii ii da i i -k (i diypropolyne)				
Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 2.   Pressure rating SDR 7.4 or Pipe series S 3.2	1,1	PP-R Pipe:				
1.5874 Part 2.   Pressure rating SDR 7.4 or Pipe series S 3.2						
Pressure rating SDR 7.4 or Pipe series S 3.2						
1.1.1       outside dia 20       m       120       R       R         1.1.2       outside dia 25       m       40       R       R         1.1.3       outside dia 40       m       20       R       R         1.1.4       outside dia 50       m       10       R       R         1.2       Bends 90 deg       Electrofusion fitting, Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3.       Pressure rating SDR 7.4 or Pipe series S 3.2         1.2.1       outside dia 20       No       80       R       R         1.2.2       outside dia 25       No       30       R       R         1.2.3       outside dia 32       No       20       R       R         1.2.4       outside dia 40       No       15       R       R         1.3       Tee equal       Electrofusion fitting, Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3.       Pressure rating SDR 7.4 or Pipe series S 3.2         1.3.1       outside dia 20       No       30       R       R         1.3.2       outside dia 20       No       30       R       R         1.3.3       outside dia 40       No       10       R						
1.1.2       outside dia 25       m       40       R       R         1.1.3       outside dia 40       m       20       R       R         1.1.4       outside dia 50       m       10       R       R         1.2       Bends 90 deg       Electrofusion fitting.         Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3.       Pressure rating SDR 7.4 or Pipe series S 3.2         1.2.1       outside dia 20       No       80       R       R         1.2.2       outside dia 32       No       20       R       R         1.2.3       outside dia 32       No       20       R       R         1.2.4       outside dia 40       No       15       R       R         1.3       Tee equal       Electrofusion fitting. Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3. Pressure rating SDR 7.4 or Pipe series S 3.2       No       30       R       R         1.3.1       outside dia 20       No       30       R       R         1.3.2       outside dia 25       No       15       R       R         1.3.3       outside dia 20       No       10       R       R		Pressure rating 5DR 7.4 or Pipe series 5 3.2				
1.1.2       outside dia 25       m       40       R       R         1.1.3       outside dia 40       m       20       R       R         1.1.4       outside dia 50       m       10       R       R         1.2       Bends 90 deg       Electrofusion fitting.         Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3.       Pressure rating SDR 7.4 or Pipe series S 3.2         1.2.1       outside dia 20       No       80       R       R         1.2.2       outside dia 32       No       20       R       R         1.2.3       outside dia 32       No       20       R       R         1.2.4       outside dia 40       No       15       R       R         1.3       Tee equal       Electrofusion fitting. Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3. Pressure rating SDR 7.4 or Pipe series S 3.2       No       30       R       R         1.3.1       outside dia 20       No       30       R       R         1.3.2       outside dia 25       No       15       R       R         1.3.3       outside dia 20       No       10       R       R	1.1.1	outside dia 20	m	120	R	R
1.1.3       outside dia 40       m       20       R       R         1.1.4       outside dia 50       m       10       R       R         1.2       Bends 90 deg       Electrofusion fitting.         Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3.       Pressure rating SDR 7.4 or Pipe series S 3.2         1.2.1       outside dia 20       No       80       R       R         1.2.2       outside dia 25       No       30       R       R         1.2.3       outside dia 32       No       20       R       R         1.2.4       outside dia 40       No       15       R       R         1.3       Tee equal       Electrofusion fitting.         Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3.       Pressure rating SDR 7.4 or Pipe series S 3.2         1.3.1       outside dia 20       No       30       R       R         1.3.2       outside dia 25       No       15       R       R         1.3.3       outside dia 40       No       10       R       R						
1.1.4 outside dia 50 m 10 R R  1,2 Bends 90 deg  Electrofusion fitting. Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3. Pressure rating SDR 7.4 or Pipe series S 3.2  1.2.1 outside dia 20 No 80 R R  1.2.2 outside dia 25 No 30 R R  1.2.3 outside dia 32 No 20 R R  1.2.4 outside dia 40 No 15 R R  1.3 Tee equal Electrofusion fitting. Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3. Pressure rating SDR 7.4 or Pipe series S 3.2	1.1.2	outside dia 25	m	40	R	R
1.1.4 outside dia 50 m 10 R R  1,2 Bends 90 deg  Electrofusion fitting. Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3. Pressure rating SDR 7.4 or Pipe series S 3.2  1.2.1 outside dia 20 No 80 R R  1.2.2 outside dia 25 No 30 R R  1.2.3 outside dia 32 No 20 R R  1.2.4 outside dia 40 No 15 R R  1.3 Tee equal Electrofusion fitting. Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3. Pressure rating SDR 7.4 or Pipe series S 3.2	4.4.2	Leader to 40		20	_	<u> </u>
1,2 Bends 90 deg  Electrofusion fitting. Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3. Pressure rating SDR 7.4 or Pipe series S 3.2  1.2.1 outside dia 20  No 80 R R  1.2.2 outside dia 25  No 30 R R  1.2.3 outside dia 32  No 20 R R  1.2.4 outside dia 40  No 15 R R  1.3 Tee equal Electrofusion fitting. Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3. Pressure rating SDR 7.4 or Pipe series S 3.2  1.3.1 outside dia 20  No 30 R R  R	1.1.3	outside dia 40	m	20	K	K
1,2 Bends 90 deg  Electrofusion fitting. Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3. Pressure rating SDR 7.4 or Pipe series S 3.2  1.2.1 outside dia 20  No 80 R R  1.2.2 outside dia 25  No 30 R R  1.2.3 outside dia 32  No 20 R R  1.2.4 outside dia 40  No 15 R R  1.3 Tee equal Electrofusion fitting. Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3. Pressure rating SDR 7.4 or Pipe series S 3.2  1.3.1 outside dia 20  No 30 R R  R	1.1.4	outside dia 50	m	10	R	R
Electrofusion fitting. Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3. Pressure rating SDR 7.4 or Pipe series 5 3.2  1.2.1 outside dia 20						
Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3.   Pressure rating SDR 7.4 or Pipe series S 3.2	1,2					
15874 Part 3. Pressure rating SDR 7.4 or Pipe series S 3.2  1.2.1 outside dia 20  No 80 R R  1.2.2 outside dia 25  No 30 R R  1.2.3 outside dia 32  No 20 R R  1.2.4 outside dia 40  No 15 R R  1.3 Tee equal Electrofusion fitting. Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3. Pressure rating SDR 7.4 or Pipe series S 3.2  1.3.1 outside dia 20  No 30 R R  1.3.2 outside dia 20  No 30 R R  R						
Pressure rating SDR 7.4 or Pipe series S 3.2						
1.2.1 outside dia 20						
1.2.2       outside dia 25       No       30       R       R         1.2.3       outside dia 32       No       20       R       R         1.2.4       outside dia 40       No       15       R       R         1.3       Tee equal       Image: Company of the company of the		ressure ruting 3DN 7.4 or ripe series 3.3.2				
1.2.3 outside dia 32	1.2.1	outside dia 20	No	80	R	R
1.2.3 outside dia 32						
1.2.4 outside dia 40 No 15 R R  1,3 Tee equal Electrofusion fitting. Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3. Pressure rating SDR 7.4 or Pipe series S 3.2  1.3.1 outside dia 20 No 30 R R  1.3.2 outside dia 25 No 15 R R  1.3.3 outside dia 40 No 10 R	1.2.2	outside dia 25	No	30	R	R
1.2.4 outside dia 40 No 15 R R  1,3 Tee equal Electrofusion fitting. Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3. Pressure rating SDR 7.4 or Pipe series S 3.2  1.3.1 outside dia 20 No 30 R R  1.3.2 outside dia 25 No 15 R R  1.3.3 outside dia 40 No 10 R	1 2 2	outsido dia 22	No	20	D	D
1,3 Tee equal  Electrofusion fitting. Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3. Pressure rating SDR 7.4 or Pipe series S 3.2  1.3.1 outside dia 20  No 30 R  R  1.3.2 outside dia 25  No 15 R  R	1.2.5	outside dia 52	INO	20	N .	N .
Electrofusion fitting. Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3. Pressure rating SDR 7.4 or Pipe series S 3.2  1.3.1 outside dia 20 No 30 R R  1.3.2 outside dia 25 No 15 R R  1.3.3 outside dia 40 No 10 R R	1.2.4	outside dia 40	No	15	R	R
Electrofusion fitting. Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3. Pressure rating SDR 7.4 or Pipe series S 3.2  1.3.1 outside dia 20 No 30 R R  1.3.2 outside dia 25 No 15 R R  1.3.3 outside dia 40 No 10 R R						
Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3. Pressure rating SDR 7.4 or Pipe series S 3.2  1.3.1 outside dia 20 No 30 R R  1.3.2 outside dia 25 No 15 R R  1.3.3 outside dia 40 No 10 R R	1,3					
15874 Part 3. Pressure rating SDR 7.4 or Pipe series S 3.2  1.3.1 outside dia 20  No 30 R  R  1.3.2 outside dia 25  No 15 R  R  1.3.3 outside dia 40  No 10 R  R		<u> </u>				
Pressure rating SDR 7.4 or Pipe series S 3.2  1.3.1 outside dia 20  No 30 R  R  1.3.2 outside dia 25  No 15 R  R  1.3.3 outside dia 40  No 10 R  R						
1.3.1 outside dia 20						
1.3.2 outside dia 25 No 15 R R  1.3.3 outside dia 40 No 10 R R				<u> </u>		
1.3.3 outside dia 40 No 10 R R	1.3.1	outside dia 20	No	30	R	R
1.3.3 outside dia 40 No 10 R R						
	1.3.2	outside dia 25	No	15	R	R
	1 2 2	outside dia 40	No	10	R	R
	1.3.3	outside did 40	INU	10	IX.	113
1,4  Tee reducing	1,4	Tee reducing		1		

Electrofusion fitting. Polypropylene Random Co-Polymer (PPR) in accordance with SAN		1		
Polypropylene Random Co-Polymer (PPR) in accordance with SAN				
	IS			
15874 Part 3. Pressure rating SDR 7.4 or Pipe series S 3.2				
Tressure rating 5DN 7.4 of Tipe Series 5.5.2				
1.4.1 outside diam 25 x 20	No	15	R	R
1.4.2 outside diam 32 x 20	No	5	R	R
1,5 Reducer concentric				
Electrofusion fitting.				
Polypropylene Random Co-Polymer (PPR) in accordance with SAN	IS			
15874 Part 3.				
Pressure rating SDR 7.4 or Pipe series S 3.2				
1.5.1 outside diam 25 x 20	No	20	R	R
1.5.1   Outside diam 25 x 20	INO	20	ĸ	ĸ
1.5.2 outside diam 40 x 20	No	10	R	R
1,6 Union screwed				
Electrofusion fitting.	ıc			
Polypropylene Random Co-Polymer (PPR) in accordance with SAN 15874 Part 3.	15			
Pressure rating SDR 7.4 or Pipe series S 3.2				
1.6.1 outside dia 20	No	10	R	R
		_		
1.6.2 outside dia 25	No	10	R	R
1.6.3 outside dia 32	No	10	R	R
1,7 Socket				
Electrofusion fitting.				
Polypropylene Random Co-Polymer (PPR) in accordance with SAN 15874 Part 3.	15			
Pressure rating SDR 7.4 or Pipe series S 3.2				
The source running out with on a high source of the				
1.7.1 outside dia 20	No	10	R	R
1.7.2 outside dia 25	No	10	R	R
1.7.3 outside dia 32	No	6	R	R
2.7.5 Judiside did 52	140		••	
1,8 Female adaptor				
Electrofusion fitting.				
Polypropylene Random Co-Polymer (PPR) in accordance with SAN	IS			
15874 Part 3. Pressure rating SDR 7.4 or Pipe series S 3.2				
rressure rating 5DN 7.4 or ripe series 5 5.2				
1.8.1 outside dia 20	No	16	R	
1.8.2 outside dia 25	No	8	R	R
1.9.2 posteido dia 22	R1 -		D.	D.
1.8.3 outside dia 32	No	6	R	R
1.8.4 outside dia 63	No	10	R	R
1,9 Male adaptor				

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.9.1	outside dia 20	No	4	R	R
1.0.2	autoida dia 40	NI-	4	D	D
1.9.2	outside dia 40	No	4	R	R
1.9.3	outside dia 63	No	4	R	R
1.5.5	outside did 65	140	-	N.	IX.
1.10	Isolating Valves:				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
4.0.	1.11 1.20				
1.10.1	outside dia 20	No	50	R	R
1,11	Non return valves:				
1,11	Electrofusion fitting.		-		
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
	·				
1.11.1	outside dia 20	No	15	R	R
1.11.2	outside dia 25	No	10	R	R
4.42					
1,12	Strainers: Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
	·				
1.12.1	outside dia 20	No	10	R	R
1.12.2	outside dia 40	No	1	R	R
			<u> </u>		
1,13	Thermaflex Pipe Insulation Thermaflex insulation				
	THEITHAITEX ITISUIALION				
1.13.1	outside dia 20	No	80	R	R
1.13.1	0.000 did 20	140	- 55	· · ·	••
1.13.2	outside dia 25	No	30	R	R
1.13.3	outside dia 32	No	30	R	R
2	PIPING - GALVANIZED				
	FOLUM AFAIR				
3	EQUIPMENT				
2 1	Hoat Dumne				
3,1	Heat Pumps		l		

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	Supply install and commission Heat Pumps complete with flat plate				
	solar collector recirculation pumps for solar system and solar				
	system.				
	Include 10mm of PP-R piping insulation, 2-off 20mm vacuum				
	breakers, 15mm expansion relief valve, lever ball valves, mixing valve, temperature differential controller, hot water pipe insulation				
	and truss strengthening where required. Units to be SANS 1037 and				
	SANS 151 with Certificate. Carry a 10 Year warranty. Pressure rating				
	of 400 kPa.				
3.1.1	Hostel Type 1A - Boys - Upper Primary - 1 X 17kW HP for both				
	Sanitary and UFH	No	1	R	R
3,2	Heat Pump and Geyser Tanks				
	Supply and Install Hot Water Storage Tanks for Sanitary Use and				
224	Underflow Heatings as per the specifications		-		
3.2.1	Type 1A Hostel - Lower Primary Boys - 2000L Tank linked to Geyser	Na	4	В	
	for sanitary Boys	No	4	R	R
3,3	Solar panels				
	Suppy and install ITS Solar Panels 2.4m2 FT for the Heat Pump				
	Systems				
3.3.3	Type 1A - Lower Primary Boys- solar panels, ITS 2.4m2 FT or				
	equivalent	No	10	R	R
3,4	Recirculation Pumps				
3.4.1	Hostel Type 1A- Boys Lower Primary - HP Hotwater Recirculation				
	pumps and Solar Recirculation pump including , air releave valve & loading valve	No	2	R	R
	loading valve	NO		IX.	K
3,5	Rain Water Harvesting Tanks				
	Supply install and commission Rain Water harvesting tanks and				
	assesories. The tanks shall be installed on 200mm concrete platfrom				
	with a tap for garden use connection				
3.5.1	Hostel Type 1A Boys-Lower Primary - 5000L Jojo Tanks and				
	Accessories with a tap to be used for garden services	No	1	R	R
			<del> </del>		
			<del> </del>		
TOTAL CAP	RRIED BLOCK 11 FORWARD TO SUMMARY				R

- 1 This Bill of Quantities forms part of the contract documents and is to be read in conjunction therewith.
- 2 All works billed here shall include for the full scope of service specified including but not limited to supply, delivery, installation,
- Quantities indicated here are to be verified by the contractor against the project drawings. All discrepancies shall be brought to the attention of the responsible engineer. Should no queries be raised the contract totals and rates provided shall be deemed
- 4 No variation in rates shall be due based on variation in quantities, rate of exchange or escalation.
- 5 Errors and omissions of equipment or material required to execute the project solution specified or indicated on the drawings
- 6 All works required to execute the scope of works in accordance with the project program and quality requirements are deemed
- 7 Rates provided shall include for fixing, hangers, fittings, transformations, sealant and all other items required to deliver a
- 8 The bill of quantities shall not be used as the basis for material order.
- 9 The values here shall be entered in South African Rands and exclusive of VAT.

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	BLOCK 12 - TYPE 1A BOYS				
1	PIPING PP-R (Polypropolyne)				
	Thinks TT-K (Folypropolytic)				
1,1	PP-R Pipe:				
	Hot and Cold Water Piping.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 2.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.1.1	outside dia 20	m	120	R	R
1.1.2	outside dia 25	m	40	R	R
1.1.2	and the decided to 40		20		
1.1.3	outside dia 40	m	20	R	R
1.1.4	outside dia 50	m	10	R	R
	Bends 90 deg				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3. Pressure rating SDR 7.4 or Pipe series S 3.2				
	Tressure ruting 551(7.4 of Tipe Series 5.5.2				
1.2.1	outside dia 20	No	80	R	R
1.2.2	outside dia 25	No	30	R	R
1.2.3	outside dia 32	No	20	R	R
1.2.5	outside dia 32	110	20	IX.	I.
1.2.4	outside dia 40	No	15	R	R
1,3	Tee equal				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series \$ 3.2				
	- 0 p				
1.3.1	outside dia 20	No	30	R	R
1.3.2	outside dia 25	No	15	R	R
1.3.3	outside dia 40	No	10	R	R
1.5.5	300000 000 10	.,,	10		1.
1,4	Tee reducing				

Electrofusion fitting. Polypropylene Random Co-Polymer (PPR) in accordance with SAN		1		
Polypropylene Random Co-Polymer (PPR) in accordance with SAN				
	IS			
15874 Part 3. Pressure rating SDR 7.4 or Pipe series S 3.2				
Tressure rating 5DN 7.4 of Tipe Series 5.5.2				
1.4.1 outside diam 25 x 20	No	15	R	R
1.4.2 outside diam 32 x 20	No	5	R	R
1,5 Reducer concentric				
Electrofusion fitting.				
Polypropylene Random Co-Polymer (PPR) in accordance with SAN	IS			
15874 Part 3.				
Pressure rating SDR 7.4 or Pipe series S 3.2				
1.5.1 outside diam 25 x 20	No	20	R	R
1.5.1   Outside diam 25 x 20	INO	20	ĸ	ĸ
1.5.2 outside diam 40 x 20	No	10	R	R
1,6 Union screwed				
Electrofusion fitting.	ıc			
Polypropylene Random Co-Polymer (PPR) in accordance with SAN 15874 Part 3.	15			
Pressure rating SDR 7.4 or Pipe series S 3.2				
1.6.1 outside dia 20	No	10	R	R
		_		
1.6.2 outside dia 25	No	10	R	R
1.6.3 outside dia 32	No	10	R	R
1,7 Socket				
Electrofusion fitting.				
Polypropylene Random Co-Polymer (PPR) in accordance with SAN 15874 Part 3.	15			
Pressure rating SDR 7.4 or Pipe series S 3.2				
The source running out with on a high source of the				
1.7.1 outside dia 20	No	10	R	R
1.7.2 outside dia 25	No	10	R	R
1.7.3 outside dia 32	No	6	R	R
2.7.5 Judiside did 52	140		••	
1,8 Female adaptor				
Electrofusion fitting.				
Polypropylene Random Co-Polymer (PPR) in accordance with SAN	IS			
15874 Part 3. Pressure rating SDR 7.4 or Pipe series S 3.2				
rressure rating 5DN 7.4 or ripe series 5 5.2				
1.8.1 outside dia 20	No	16	R	
1.8.2 outside dia 25	No	8	R	R
1.9.2 posteido dia 22	R1 -		D.	D.
1.8.3 outside dia 32	No	6	R	R
1.8.4 outside dia 63	No	10	R	R
1,9 Male adaptor				

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.9.1	outside dia 20	No	4	R	R
1.0.2	autoida dia 40	NI-	4	D	D
1.9.2	outside dia 40	No	4	R	R
1.9.3	outside dia 63	No	4	R	R
1.5.5	outside did 65	140	-	· ·	IX.
1.10	Isolating Valves:				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
4.0.	1.11 1.20				
1.10.1	outside dia 20	No	50	R	R
1,11	Non return valves:				
1,11	Electrofusion fitting.		-		
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
	·				
1.11.1	outside dia 20	No	15	R	R
1.11.2	outside dia 25	No	10	R	R
4.42					
1,12	Strainers: Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
	·				
1.12.1	outside dia 20	No	10	R	R
1.12.2	outside dia 40	No	1	R	R
			<u> </u>		
1,13	Thermaflex Pipe Insulation Thermaflex insulation				
	THEITHAITEX ITISUIALION				
1.13.1	outside dia 20	No	80	R	R
1.13.1	0.000 did 20	140	- 55	· · ·	
1.13.2	outside dia 25	No	30	R	R
1.13.3	outside dia 32	No	30	R	R
2	PIPING - GALVANIZED				
	FOLUM AFAIR				
3	EQUIPMENT				
2 1	Hoat Dumne				
3,1	Heat Pumps		l		

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	Supply install and commission Heat Pumps complete with flat plate				
	solar collector recirculation pumps for solar system and solar				
	system.				
	Include 10mm of PP-R piping insulation, 2-off 20mm vacuum				
	breakers, 15mm expansion relief valve, lever ball valves, mixing valve, temperature differential controller, hot water pipe insulation				
	and truss strengthening where required. Units to be SANS 1037 and				
	SANS 151 with Certificate. Carry a 10 Year warranty. Pressure rating				
	of 400 kPa.				
3.1.1	Hostel Type 1A - Boys - Upper Primary - 1 X 17kW HP for both				
	Sanitary and UFH	No	1	R	R
3,2	Heat Pump and Geyser Tanks				
	Supply and Install Hot Water Storage Tanks for Sanitary Use and				1
2.2	Underflow Heatings as per the specifications		ļ		ļ
3.2.1	Type 1A Hostel - Lower Primary Boys - 2000L Tank linked to Geyser	NI-	4		_
	for sanitary Boys	No	4	R	R
3,3	Solar panels				
3,3	Suppy and install ITS Solar Panels 2.4m2 FT for the Heat Pump				
	Systems				
3.3.3	Type 1A - Lower Primary Boys- solar panels, ITS 2.4m2 FT or				
	equivalent	No	10	R	R
3,4	Recirculation Pumps				
3.4.1	Hostel Type 1A- Boys Lower Primary - HP Hotwater Recirculation				
	pumps and Solar Recirculation pump including , air releave valve &		_		_
	loading valve	No	2	R	R
3,5	Rain Water Harvesting Tanks				
3,3	Supply install and commission Rain Water harvesting tanks and				
	assesories. The tanks shall be installed on 200mm concrete platfrom				
	with a tap for garden use connection				
3.5.1	Hostel Type 1A Boys-Lower Primary - 5000L Jojo Tanks and				İ
	Accessories with a tap to be used for garden services	No	1	R	R
	RIED BLOCK 12 FORWARD TO SUMMARY				R

- 1 This Bill of Quantities forms part of the contract documents and is to be read in conjunction therewith.
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ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	BLOCK 13 REFUSE AREA				
1	DIDING DD D (Debuggered)				
	PIPING PP-R (Polypropolyne)				
1,1	PP-R Pipe:				
,	Hot and Cold Water Piping.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 2.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.1.1	outside dia 20	m	15	R	R
1.2	Donald 00 don				
1,2	Bends 90 deg Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.2.1	outside dia 20	No	12	R	R
1,6	Reducer concentric				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
	ressure runing obterior of the series of oil				
1.6.1	outside diam 25 x 20	No	1	R	R
1.6.2	outside diam 32 x 20	No	1	R	R
1.6.3	outside diam 32 x 25	No	1	R	R
1.6.4	outside diam 40 x 20	No	1	R	R
1.0.4	outside diam 40 x 20	INO	1	N	N .
1.6.5	outside diam 40 x 25	No	1	R	R
1.6.6	outside diam 40 x 32	No	1	R	R
1.6.7	outside diam 50 x 20	No	1	R	R
1.00	autoida diana 50 y 25	N	4	D.	
1.6.8	outside diam 50 x 25	No	1	R	R
1,7	Union screwed				
_,,	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
1.7.1	outside dia 20	No	30	R	R
1.7.1	outside dia 20	110	30	IX.	K
1,8	Socket				
1,0					
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.8.1	outside dia 20	No	8	R	R
1,9	Female adaptor				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.9.1	outside dia 20	No	4	R	R
1.5.1	outside did 20	110	·		
1.10	Male adaptor				
1.10					
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.10.1	outside dia 20	No	4	R	R
1,1	Isolating Valves:				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
	·				
1.11.1	outside dia 20	No	1	R	R
		1			
		1			
		-			
		1			
		1			
			1		
TOTAL CAR	RIED BLOCK 13 FORWARD TO SUMMARY				R
. O . AL CAN	MILD DESCRIBE TO TORRESTOR TO SOMMERICA				

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ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	BLOCK 14 - HOSTEL MASTER				
1	PIPING PP-R (Polypropolyne)				
	The state of the s				
1,1	PP-R Pipe:				
	Hot and Cold Water Piping.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 2. Pressure rating SDR 7.4 or Pipe series S 3.2				
	Fressure ruting SDN 7.4 of Fipe Series 5 5.2				
1.1.1	outside dia 20	m	28	R	R
1.1.2	outside dia 25	m	8	R	R
1,2	Bends 90 deg				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.2.1	outside dia 20	No	8	R	R
1.2.1	outside did 20	110		· ·	I N
1.2.2	outside dia 25	No	4	R	R
1,3	Tee equal				
	Electrofusion fitting. Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.3.1	outside dia 20	No	30	R	R
122	outside die 25	No	15	D	R
1.3.2	outside dia 25	No	15	R	I N
1,4	Tee reducing				
*	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2		1		
1.4.1	outside diam 25 x 20	No	8	R	R
	20.20	.,,	<u> </u>	1 = =	
1,5	Reducer concentric				

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series \$ 3.2				
1.5.1	outside diam 25 x 20	No	3	R	R
1.5.1	outside diam 25 x 20	INO	3	N.	N.
1,6	Union screwed				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.6.1	outside dia 20	No	4	R	R
1.0.1	outside dia 20	140		, ,	, N
1.6.2	outside dia 25	No	3	R	R
1,7	Socket				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.7.1	outside dia 20	No	10	R	R
			100		
1.7.2	outside dia 25	No	3	R	R
1,8	Female adaptor				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3. Pressure rating SDR 7.4 or Pipe series S 3.2				
	rressure rating 3DN 7.4 or ripe series 3 3.2				
1.8.1	outside dia 20	No	4	R	R
1.8.2	outside dia 25	No	8	R	R
1,9	Male adaptor				
	Electrofusion fitting. Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.9.1	outside dia 20	No	4	R	R
1.9.2	outside dia 25	No	1	R	R
105	autrida dia EO	NI.		В	В
1.9.5	outside dia 50	No		R	R
1.9.6	outside dia 63	No	4	R	R
			1		
1.10	Isolating Valves:				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.10.1	outside dia 20	No	4	R	R
1.10.1	outside did 20	INU	<u> </u>	••	l

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	outside dia 25	No	1	R	R
1,11	Non return valves:				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
	rressure rating 3DN 7.4 or ripe series 3.3.2				
1.11.1	outside dia 25	No	1	R	R
	W. C. C. C. C. C. C. C. C. C. C. C. C. C.				
1,12	Strainers:				
	Electrofusion fitting.				
	Electionation retains.				
1.12.1	outside dia 25	No	1	R	R
1.12.1	outside did 25	140	-		
1,13	Thermaflex Pipe Insulation				
	Thermaflex insulation				
					1
1.13.1	outside dia 20	No	14	R	R
2	EQUIPMENT				
				R	R
2,2	Heat Pump and Geyser Tanks				
	Supply and Install a 200L heat pump heated geyser c/w heat pump		1		
	and electrical back-up.		1	R	R
2,5	Rain Water Harvesting Tanks				
	5000L Jojo Tanks and Accessories with a tap to be used for garden				
2.5.14	services	No	1	R	R
					1
					+
TOTALBLO	CV 14 CARRIED ECRIMAND TO CLIMARA RV				l D
TOTALBLO	CK 14 CARRIED FORWARD TO SUMMARY				R

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ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	BLOCK 15 - HOSTEL ADMINISTRATION				
1	PIPING PP-R (Polypropolyne)				
1,1	PP-R Pipe:				
	Hot and Cold Water Piping.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 2.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.1.1	outside dia 16	m	25	R	R
1.1.2	outside dia 20	m	28	R	R
112	autaida dia 25		10	D	 
1.1.3	outside dia 25	m	16	R	R
			+		
1,2	Bends 90 deg				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.2.1	outside dia 16	No	24	R	R
1.2.2	outside dia 20	No	18	R	R
1.2.2	outside dia 20	INO	10	ĸ	K
1.2.3	outside dia 25	No	4	R	R
1,3	Tee equal				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1 2 1	outside die 20	No	20	В	R
1.3.1	outside dia 20	No	30	R	n n
1.3.2	outside dia 25	No	15	R	R
		.,,	1		1.
1,4	Tee reducing				

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.4.1	outside diam 25 x 20	No	8	R	R
4.5	Reducer concentric				
1,5	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series \$ 3.2				
1.5.1	outside diam 25 x 20	No	8	R	R
1.5.2	outside diam 20 x 16	No	15	R	R
1,6	Union screwed				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.6.1	autoida dia 20	N	4	D.	D .
1.6.1	outside dia 20	No	4	R	R
1.6.2	outside dia 25	No	3	R	R
1.0.2	outside dia 25	INO	3	N.	K
1,7	Socket				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.7.1	outside dia 20	No	10	R	R
1.7.2	outside dia 25	No	3	R	R
1,8	Female adaptor				
	Electrofusion fitting. Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
	The series of th				
1.8.1	outside dia 20	No	4	R	R
1.8.2	outside dia 25	No	8	R	R
1,9	Male adaptor				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.0.1	outside die 20	Nic	4	D	D
1.9.1	outside dia 20	No	4	R	R
1.9.2	outside dia 25	No	1	R	R
1.5.2	Oddarde did 25	INU	1	••	,,
1.9.5	outside dia 50	No		R	R
			1	-	1

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
1.9.6	outside dia 63	No	4	R	R
1.10	Isolating Valves:				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.10.1	outside dia 16	No	9	R	R
1.10.2	outside dia 20	No	4	R	R
1.10.3	outside dia 25	No	3	R	R
1,11	Non return valves:				
1.11.1	outside dia 25	No	1	R	R
1,12	Strainers:				
1.12.1	outside dia 25	No	1	R	R
1,13	Thermaflex Pipe Insulation				
1.13.1	outside dia 16	No	14	R	R
1.13.2	outside dia 20	No	10	R	R
1.13.3	outside dia 25	No	4	R	R
2	EQUIPMENT				
2,2	Heat Pump and Geyser Tanks				
	Supply and Install a 200L heat pump heated geyser c/w heat pump				
	and electrical back-up.		1	R	R
2,5	Rain Water Harvesting Tanks		1		-
2.5.14	5000L Jojo Tanks and Accessories with a tap to be used for garden	l			
	services	No	2	R	R
			1		
			1		-
					-
			1		-
			1		-
					_
TOTAL BLO	CK 15 CARRIED FORWARD TO SUMMARY				R

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ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	BLOCK 16 - STAFF HOUSE				
1	PIPING PP-R (Polypropolyne)				
	Piring PP-R (Polypropolytie)				
1,1	PP-R Pipe:				
-	Hot and Cold Water Piping.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 2.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
444			20		
1.1.1	outside dia 20	m	28	R	R
1.1.2	outside dia 25	m	8	R	R
1.1.2	outside did 25				1
1,2	Bends 90 deg				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.2.1	outside dia 20	No	8	R	R
1.2.1	outside dia 20	INO		K	K
1.2.2	outside dia 25	No	4	R	R
1,3	Tee equal				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.3.1	outside dia 20	No	30	R	R
1.5.1	outside and 20	140	30		1
1.3.2	outside dia 25	No	15	R	R
1,4	Tee reducing				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
<u> </u>	Pressure rating SDR 7.4 or Pipe series S 3.2		+		
1.4.1	outside diam 25 x 20	No	8	R	R
1.7.1	Succession London	.,,	<del>                                     </del>		1
			1		
1,5	Reducer concentric				

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.5.1	outside diam 25 x 20	No	3	R	R
1.6	Union screwed				
,-	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
	, , , , , , , , , , , , , , , , , , ,				
1.6.1	outside dia 20	No	4	R	R
1.6.2	outside dia 25	No	3	R	R
	Socket				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.7.1	outside dia 20	No	10	R	R
1.7.1	outside dia 20	INO	10	N.	N.
1.7.2	outside dia 25	No	3	R	R
1.7.2	outside did 25	110			
1,8	Female adaptor				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.8.1	outside dia 20	No	4	R	R
102	and the disper	NI-		В	D.
1.8.2	outside dia 25	No	8	R	R
1,9	Male adaptor				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.9.1	outside dia 20	No	4	R	R
1.9.2	outside dia 25	No	1	R	R
105	outsido dia EO	Nic	_	D	D
1.9.5	outside dia 50	No	0	R	R
1.9.6	outside dia 63	No	4	R	R
1.5.0		140	7		
1.10	Isolating Valves:				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
		1		<u> </u>	1
1.10.1	outside dia 20	No	4	R	R

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	outside dia 25	No	1	R	R
1,11	Non return valves:				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
					_
1.11.1	outside dia 25	No	1	R	R
1 12	Strainers:				
1,12					
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.12.1	outside dia 25	No	1	R	R
1.12.1	outside dia 25	INO	1	N	N.
1,13	Thermaflex Pipe Insulation				
	Thermaflex insulation				
1.13.1	outside dia 20	No	14	R	R
2	EQUIPMENT				
2,2	Heat Pump and Geyser Tanks				
	Supply and Install a 300L heat pump heated geyser c/w heat pump				
	and electrical back-up.		2	R	R
2,5	Rain Water Harvesting Tanks				
2.5.14	5000L Jojo Tanks and Accessories with a tap to be used for garden				_
	services	No	2	R	R
TOTALBLO	CK 16 CARRIED FORWARD TO SUMMARY				R

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ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	BLOCK 17 - STAFF HOUSE				
1	PIPING PP-R (Polypropolyne)				
1,1	PP-R Pipe:				
1,1	Hot and Cold Water Piping.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 2.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
	·				
1.1.1	outside dia 20	m	28	R	R
1.1.2	outside dia 25	m	8	R	R
1,2	Bends 90 deg				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
	riessure rating 3DN 7.4 or ripe series 3 3.2				
1.2.1	outside dia 20	No	8	R	R
1.2.2	outside dia 25	No	4	R	R
1,3	Tee equal				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1 2 1	autoida dia 20	NI-	20	В	
1.3.1	outside dia 20	No	30	R	R
1.3.2	outside dia 25	No	15	R	R
1.5.2	Outside and ES	.,,	1 10		<del> </del>
1,4	Tee reducing				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.4.1	outside diam 25 x 20	No	8	R	R
4.5	Participant de la contraction				
1,5	Reducer concentric				

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.5.1	outside diam 25 x 20	No	3	R	R
1.6	Union screwed				
,-	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
	, , , , , , , , , , , , , , , , , , ,				
1.6.1	outside dia 20	No	4	R	R
1.6.2	outside dia 25	No	3	R	R
	Socket				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.7.1	outside dia 20	No	10	R	R
1.7.1	outside dia 20	INO	10	N.	N.
1.7.2	outside dia 25	No	3	R	R
1.7.2	outside did 25	110			
1,8	Female adaptor				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.8.1	outside dia 20	No	4	R	R
102	and the disper	NI-		В	D.
1.8.2	outside dia 25	No	8	R	R
1,9	Male adaptor				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.9.1	outside dia 20	No	4	R	R
1.9.2	outside dia 25	No	1	R	R
105	outsido dia EO	Nic	_	D	D
1.9.5	outside dia 50	No	0	R	R
1.9.6	outside dia 63	No	4	R	R
1.5.0		140	7		
1.10	Isolating Valves:				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
		1		<u> </u>	1
1.10.1	outside dia 20	No	4	R	R

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
				_	_
	outside dia 25	No	1	R	R
1,11	Non return valves:				
-,	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
				_	_
1.11.1	outside dia 25	No	1	R	R
1,12	Strainers:				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.12.1	outside dia 25	No	1	R	R
1,13	Thermaflex Pipe Insulation				
	Thermaflex insulation				
_					
1.13.1	outside dia 20	No	14	R	R
2	EQUIPMENT				
2,2	Heat Pump and Geyser Tanks				
	Supply and Install a 300L heat pump heated geyser c/w heat pump				_
	and electrical back-up.		2	R	R
2,5	Rain Water Harvesting Tanks				<del> </del>
	5000L Jojo Tanks and Accessories with a tap to be used for garden				
2.5.14	services	No	2	R	R
	-				
					-
					-
TOTALDIO	CV 47 CARRIED FORWARD TO CURARARY				D
TOTALBLO	CK 17 CARRIED FORWARD TO SUMMARY				R

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ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	BLOCK 18 - STAFF HOUSE				
1	PIPING PP-R (Polypropolyne)				
1,1	PP-R Pipe:				+
	Hot and Cold Water Piping.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 2.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.1.1	outside dia 20	m	28	R	R
1.1.2	outside dia 25	m	8	R	R
1,2	Bends 90 deg				
1,4	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.2.1	outside dia 20	No	8	R	R
1.2.2	outside dia 25	No	4	R	R
1.2	To a second				
1,3	Tee equal Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.3.1	outside dia 20	No	30	R	R
1.3.2	outside dia 25	No	15	R	R
1,4	Tee reducing Electrofusion fitting.		+		
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
	,				
1.4.1	outside diam 25 x 20	No	8	R	R
1,5	Reducer concentric				

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.5.1	outside diam 25 x 20	No	3	R	R
1.5.1	outside diam 25 x 20	INO	3	N.	N.
1,6	Union screwed				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.6.1	outside dia 20	No	4	R	R
1.6.2	outside dia 25	No	3	R	R
1,7	Socket				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.7.1	outside dia 20	No	10	R	R
1.7.1	outside dia 20	110	10	IX.	K
1.7.2	outside dia 25	No	3	R	R
1,8	Female adaptor				
	Electrofusion fitting. Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.8.1	outside dia 20	No	4	R	R
1.8.2	outside dia 25	No	8	R	R
1.0.2	outside dia 25	110			I N
1,9	Male adaptor				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3. Pressure rating SDR 7.4 or Pipe series S 3.2				
	r ressure ruting option of the series of old				
1.9.1	outside dia 20	No	4	R	R
1.9.2	outside dia 25	No	1	R	R
1.9.5	outside dia 50	No		R	R
1.9.5	outside dia 50	INU		••	
1.9.6	outside dia 63	No	4	R	R
1.10	Isolating Valves:				
	Electrofusion fitting. Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.10.1	outside dia 20	No	4	R	R

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
1.10.2	outside dia 25	No	1	R	R
1,11	Non return valves:				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.11.1	outside dia 25	No	1	R	R
1,12	Strainers:				
1.12.1	outside dia 25	No	1	R	R
1.12.1	outside did 25	INU	1	IX.	IX.
1,13	Thermaflex Pipe Insulation				
1,13	Thermaflex ripe insulation				
	Thermanex insulation				
1.13.1	outside dia 20	No	14	R	R
1.15.1	outside did 20	140	17		N .
2	EQUIPMENT				
	2401 111211				
2,2	Heat Pump and Geyser Tanks				
	Supply and Install a 300L heat pump heated geyser c/w heat pump				
	and electrical back-up.		2	R	R
2,5	Rain Water Harvesting Tanks				
	5000L Jojo Tanks and Accessories with a tap to be used for garden				
2.5.14	services	No	2	R	R
					_
TOTALBLO	CK 18 CARRIED FORWARD TO SUMMARY				R

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ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	BLOCK 19 - STAFF HOUSE				
1	PIPING PP-R (Polypropolyne)				
1,1	PP-R Pipe:				
	Hot and Cold Water Piping.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 2.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.1.1	outside dia 20	m	28	R	R
1.1.2	outside dia 25	m	8	R	R
1,2	Bends 90 deg				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.2.1	outside dia 20	No	8	R	R
1.2.2	outside dia 25	No	4	R	R
1,3	Tee equal				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.3.1	outside dia 20	No	30	R	R
1.3.2	outside dia 25	No	15	R	R
1,4	Tee reducing				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.4.1	outside diam 25 x 20	No	8	R	R
1,5	Reducer concentric				

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series \$ 3.2				
1.5.1	outside diam 25 x 20	No	3	R	R
1.5.1	outside diam 25 x 20	INO	3	N.	N.
1,6	Union screwed				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.6.1	outside dia 20	No	4	R	R
1.0.1	outside dia 20	140		, ,	, N
1.6.2	outside dia 25	No	3	R	R
1,7	Socket				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.7.1	outside dia 20	No	10	R	R
			100		
1.7.2	outside dia 25	No	3	R	R
1,8	Female adaptor				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3. Pressure rating SDR 7.4 or Pipe series S 3.2				
	rressure rating 3DN 7.4 or ripe series 3 3.2				
1.8.1	outside dia 20	No	4	R	R
1.8.2	outside dia 25	No	8	R	R
1,9	Male adaptor				
	Electrofusion fitting. Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.9.1	outside dia 20	No	4	R	R
1.9.2	outside dia 25	No	1	R	R
105	autrida dia EO	NI.		В	В
1.9.5	outside dia 50	No		R	R
1.9.6	outside dia 63	No	4	R	R
			1		
1.10	Isolating Valves:				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.10.1	outside dia 20	No	4	R	R
1.10.1	outside did 20	INU	<u> </u>	••	l

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	outside dia 25	No	1	R	R
1,11	Non return valves:				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.11.1	outside dia 25	No	1	R	R
1,12	Strainers:				
1.12.1	outside dia 25	No	1	R	R
1.14.1	outside and 25	INO	1		
1,13	Thermaflex Pipe Insulation				
1,13	Thermaflex insulation				
	THE ITIALIEN HIS GIALION				
1.13.1	outside dia 20	No	14	R	R
1.13.1	outside dia 20	110	17	K	K
2	EQUIPMENT				
	EQUI MEN				
2,2	Heat Pump and Geyser Tanks				
_,_	Supply and Install a 300L heat pump heated geyser c/w heat pump				
	and electrical back-up.		2	R	R
	and electrical back up.				
2,5	Rain Water Harvesting Tanks				
	5000L Jojo Tanks and Accessories with a tap to be used for garden				
2.5.14	services	No	2	R	R
	36141663	110			
TOTAL RLO	CK 19 CARRIED FORWARD TO SUMMARY				R
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ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	BLOCK 20 - TV ROOM				
_					
1	PIPING PP-R (Polypropolyne)				
11	DD D Divers				
1,1	PP-R Pipe: Hot and Cold Water Piping.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 2.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
	Tressure ruting 35K 7.4 or ripe series 3 3.2				
1.1.1	outside dia 20	m	10	R	R
1.1.2	outside dia 25	m	5	R	R
1,2	Bends 90 deg				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
			_		
1.2.1	outside dia 20	No	8	R	R
122	outside dia 25	No	4	R	D
1.2.2	outside dia 25	No	4	ĸ	R
1,3	Tee equal				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.3.1	outside dia 20	No	2	R	R
1.3.2	outside dia 25	No	2	R	R
1,4	Tee reducing				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.4.1	outside diam 25 v 20	No	2	В	D
1.4.1	outside diam 25 x 20	No	<u> </u>	R	R

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
1.4.2	outside diam 32 x 20	No	1	R	R
1,5	Reducer concentric				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.5.1	outside diam 25 x 20	No	2	R	R
1.5.2	outside diam 32 x 20	No	1	R	R
1,6	Union screwed				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.6.1	outside dia 20	No	5	R	R
			_		_
1.6.2	outside dia 25	No	2	R	R
1,7	Socket				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.7.1	outside dia 20	No		R	D
1.7.1	outside dia 20	No	5	ĸ	R
1.7.2	outside dia 25	No	3	R	R
1.7.2	outside did 25	INO	3	N.	N.
1.7.3	outside dia 32	No	1	R	R
1.7.5	outside dia 32	110		K	K
1,8	Female adaptor				
1,0	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
					1
1.8.1	outside dia 20	No	3	R	R
				-	† -
1.8.2	outside dia 25	No	3	R	R
<u> </u>					
1.8.3	outside dia 32	No	1	R	R
1,9	Male adaptor				
,	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				1
	15874 Part 3.				1
	Pressure rating SDR 7.4 or Pipe series S 3.2				1
1.9.1	outside dia 20	No	3	R	R
<u> </u>			1		1

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
1.9.2	outside dia 25	No	3	R	
-					
1.10	Isolating Valves:				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.10.1	outside dia 20	No	2	R	R
1.10.2	outside dia 25	No	2	R	R
1,11	Non return valves:				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.11.1	outside dia 20	No	2	R	R
1.11.1	outside dia 20	No	2	ĸ	K
1.11.2	outside dia 25	No	1	R	R
1.11.2	outside dia 23	INO	1	K	K
1,12	Strainers:		+		
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.12.1	outside dia 20	No	2	R	R
1,13	Thermaflex Pipe Insulation				
	Thermaflex insulation				
1.13.1	outside dia 20	No	10	R	R
			<u> </u>	_	1_
1.13.2	outside dia 25	No	5	R	R
	FOLUDATAIT				
2	EQUIPMENT		1		+
2,1	Hot Water Heaters				+
۷,1	not water neaters				
2.1.1	10 litre underbasin electric water heater.	No	2	R	R
2.1.1	25 and 5 under Susain electric water fleater.	140	<del>                                     </del>	.,	
					1

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
TOTAL BLO	CK 20 CARRIED FORWARD TO SUMMARY				R

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ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	DI COM CA TANTA A CIDI C				
	BLOCK 21 TYPE 1A GIRLS				
1	PIPING PP-R (Polypropolyne)				
_	The state of the s				
1,1	PP-R Pipe:				
	Hot and Cold Water Piping.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 2. Pressure rating SDR 7.4 or Pipe series S 3.2				
	riessure rating 3DN 7.4 or ripe series 3 3.2				
1.1.1	outside dia 20	m	120	R	R
1.1.2	outside dia 25	m	40	R	R
1.1.3	outside dia 40	m	20	R	R
1.1.4	outside dia 50	m	10	R	R
1.1.4	outside did 50		10	· ·	T.
1,2	Bends 90 deg				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2		1		
1.2.1	outside dia 20	No	80	R	R
1.2.2	outside dia 25	No	30	R	R
1.2.3	outside dia 32	No	30	R	R
1.2.4	outside dia 40	No	15	R	R
1.2.4	outside dia 40	INO	15	, ,	K
1,3	Tee equal				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.3.1	outside dia 20	No	30	R	R
2.5.1		.,,	1 30	<u> </u>	
1.3.2	outside dia 25	No	15	R	R
1.3.3	outside dia 40	No	10	R	R
1.4	Too wade sing		1		
1,4	Tee reducing				

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.4.1	outside diam 25 x 20	No	15	R	R
		, , ,			
1.4.2	outside diam 32 x 20	No	5	R	R
1,5	Reducer concentric				
	Electrofusion fitting. Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series \$ 3.2				
1.5.1	outside diam 25 x 20	No	20	R	R
1.5.2	outside diam 40 x 20	No	10	R	R
-			-		
1,6	Union screwed		<del> </del>		
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.6.1	outside dia 20	No	10	R	R
1.6.1	outside dia 20	NO	10	K	K
1.6.2	outside dia 25	No	10	R	R
1.6.3	outside dia 32	No	10	R	R
1,7	Socket				
	Electrofusion fitting. Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.7.1	outside dia 20	No	10	R	R
173	autoida dia 25	NI.	10	D	D
1.7.2	outside dia 25	No	10	R	R
1.7.3	outside dia 32	No	6	R	R
1,8	Female adaptor				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.8.1	outside dia 20	No	16	R	R
1.8.2	outside dia 25	No	8	R	R
1.8.3	outside dia 32	No	6	R	R
100	autoida dia C2	N1 -	40	<u> </u>	D.
1.8.6	outside dia 63	No	10	R	R
1			1	1	1
1,9	Male adaptor				

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.9.1	outside dia 20	No	4	R	R
1.9.2	outside dia 25	No	0	R	R
		-			
1.9.3	outside dia 32	No	0	R	R
1.9.4	outside dia 40	No	4	R	R
2.51.	Control of the Total				
1.9.5	outside dia 50	No	0	R	R
1.9.6	outside dia 63	No	4	R	R
1.3.0	outside dia 03	NO	4	N	K
1.10	Isolating Valves:				
	Electrofusion fitting. Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1 10 1				_	
1.10.1	outside dia 20	No	50	R	R
1,11	Non return valves:				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.11.1	outside dia 20	No	15	R	R
1.11.2	outside dia 25	No	10	R	R
1,12	Strainers: Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.12.1	outside dia 20	No	10	R	R
1.12.2	outside dia 40	No	1	R	R
-					
1,13	Thermaflex Pipe Insulation				
1,13	Thermaflex Pipe insulation  Thermaflex insulation				
1.13.1	outside dia 20	No	80	R	R
1.13.2	outside dia 25	No	30	R	R
					·
1.13.3	outside dia 32	No	30	R	R
<u> </u>					
2	EQUIPMENT				
•				-	-

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
2,1	Heat Pumps				_
	Supply install and commission Heat Pumps complete with flat plate				
	solar collector recirculation pumps for solar system and solar				
	system.				
	Include 10mm of PP-R piping insulation, 2-off 20mm vacuum				
	breakers, 15mm expansion relief valve, lever ball valves, mixing				
	valve, temperature differential controller, hot water pipe insulation				
	and truss strengthening where required. Units to be SANS 1037 and				
	SANS 151 with Certificate. Carry a 10 Year warranty. Pressure rating				
	of 400 kPa.				
2.1.9	Hostel Type 1A - Girls - Lower Primary - 1*17kW HP for both				
	Sanitary and UFH	No	1	R	R
	Heat Dumm and Course Tonks				
2,2	Heat Pump and Geyser Tanks				
	Supply and Install Hot Water Storage Tanks for Sanitary Use and Underflow Heatings as per the specifications				
2.2.8	Type 1A Lower Primary - 2000L Tank linked to Geyser for sanitary				-
2.2.0	Type 1A Lower Primary - 2000L Talik liliked to Geysel for salitary	No	1	R	R
	Type 1A Lower Filmary	NO		N.	N .
2,3	Solar panels				
	Suppy and install ITS Solar Panels 2.4m2 FT for the Heat Pump				
	Systems				
2.2.5	Type 1A - Lower Primary Girls- solar panels, ITS 2.4m2 FT or				
	equivalent	No	10	R	R
2,4	Recirculation Pumps				
2.4.9	Hostel Type 1A- Girls Lower Primary - HP Hotwater Recirculation				
	pumps and Solar Recirculation pump including , air releave valve &				
	loading valve	No	2	R	R
2,5	Rain Water Harvesting Tanks				+
	Hostel Type 1A Girls-Lower Primary - 5000L Jojo Tanks and				
2.5.14	Accessories with a tap to be used for garden services	No	1	R	R
	, , , , , , , , , , , , , , , , , , ,				
OTALBLO	CK 21 CARRIED FORWARD TO SUMMARY				R

- 1 This Bill of Quantities forms part of the contract documents and is to be read in conjunction therewith.
- 2 All works billed here shall include for the full scope of service specified including but not limited to supply, delivery, installation,
- Quantities indicated here are to be verified by the contractor against the project drawings. All discrepancies shall be brought to the attention of the responsible engineer. Should no queries be raised the contract totals and rates provided shall be deemed
- 4 No variation in rates shall be due based on variation in quantities, rate of exchange or escalation.
- 5 Errors and omissions of equipment or material required to execute the project solution specified or indicated on the drawings
- 6 All works required to execute the scope of works in accordance with the project program and quality requirements are deemed
- 7 Rates provided shall include for fixing, hangers, fittings, transformations, sealant and all other items required to deliver a
- 8 The bill of quantities shall not be used as the basis for material order.
- 9 The values here shall be entered in South African Rands and exclusive of VAT.

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	BLOCK 22 TYPE 1A GIRLS				
1	PIPING PP-R (Polypropolyne)				
1,1	PP-R Pipe:				
	Hot and Cold Water Piping.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 2.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.1.1	outside dia 20		120	R	R
1.1.1	outside dia 20	m	120	ĸ	K
1.1.2	outside dia 25	m	40	R	R
1.1.2	outside dia 25	111	40	IX.	K
1.1.3	outside dia 40	m	20	R	R
21210					
1.1.4	outside dia 50	m	10	R	R
1,2	Bends 90 deg				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.2.1	outside dia 20	No	80	R	R
1.2.2	outside dia 25	No	30	R	R
					_
1.2.3	outside dia 32	No	30	R	R
124	autoido dio 40	No	15	D	n
1.2.4	outside dia 40	No	15	R	R
1,3	Tee equal				
1,5	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
	,				
1.3.1	outside dia 20	No	30	R	R
1.3.2	outside dia 25	No	15	R	R
1.3.3	outside dia 40	No	10	R	R
1,4	Tee reducing				

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.4.1	outside diam 25 x 20	No	15	R	R
		, , ,			
1.4.2	outside diam 32 x 20	No	5	R	R
1,5	Reducer concentric				
	Electrofusion fitting. Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series \$ 3.2				
1.5.1	outside diam 25 x 20	No	20	R	R
1.5.2	outside diam 40 x 20	No	10	R	R
-			-		
1,6	Union screwed		<del> </del>		
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.6.1	outside dia 20	No	10	R	R
1.6.1	outside dia 20	NO	10	K	K
1.6.2	outside dia 25	No	10	R	R
1.6.3	outside dia 32	No	10	R	R
1,7	Socket				
	Electrofusion fitting. Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.7.1	outside dia 20	No	10	R	R
173	autoida dia 25	NI.	10	D	D
1.7.2	outside dia 25	No	10	R	R
1.7.3	outside dia 32	No	6	R	R
1,8	Female adaptor				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.8.1	outside dia 20	No	16	R	R
1.8.2	outside dia 25	No	8	R	R
1.8.3	outside dia 32	No	6	R	R
100	autoida dia C2	N1 -	40	<u> </u>	D.
1.8.6	outside dia 63	No	10	R	R
1			1	1	1
1,9	Male adaptor				

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.9.1	outside dia 20	No	4	R	R
1.9.2	outside dia 25	No	0	R	R
		-			
1.9.3	outside dia 32	No	0	R	R
1.9.4	outside dia 40	No	4	R	R
2.51.	Control of the Total				
1.9.5	outside dia 50	No	0	R	R
1.9.6	outside dia 63	No	4	R	R
1.3.0	outside dia 03	NO	4	N	K
1.10	Isolating Valves:				
	Electrofusion fitting. Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1 10 1				_	
1.10.1	outside dia 20	No	50	R	R
1,11	Non return valves:				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.11.1	outside dia 20	No	15	R	R
1.11.2	outside dia 25	No	10	R	R
1,12	Strainers: Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.12.1	outside dia 20	No	10	R	R
1.12.2	outside dia 40	No	1	R	R
-					
1,13	Thermaflex Pipe Insulation				
1,13	Thermaflex Pipe insulation  Thermaflex insulation				
1.13.1	outside dia 20	No	80	R	R
1.13.2	outside dia 25	No	30	R	R
					·
1.13.3	outside dia 32	No	30	R	R
<u> </u>					
2	EQUIPMENT				
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ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
2,1	Heat Pumps Supply install and commission Heat Pumps complete with flat plate		+		
	solar collector recirculation pumps for solar system and solar				
	system.				
	Include 10mm of PP-R piping insulation, 2-off 20mm vacuum				
	breakers, 15mm expansion relief valve, lever ball valves, mixing				
	valve, temperature differential controller, hot water pipe insulation				
	and truss strengthening where required. Units to be SANS 1037 and				
	SANS 151 with Certificate. Carry a 10 Year warranty. Pressure rating				
	of 400 kPa.				
2.1.9	Hostel Type 1A - Girls - Lower Primary - 1*17kW HP for both				1_
	Sanitary and UFH	No	1	R	R
2,2	Heat Pump and Geyser Tanks				
۷,۷	Supply and Install Hot Water Storage Tanks for Sanitary Use and				
	Underflow Heatings as per the specifications				
2.2.8	Type 1A Lower Primary - 2000L Tank linked to Geyser for sanitary				
2.2.0	Type 1A Lower Primary  Type 1A Lower Primary	No	1	R	R
	Type IA Lower Filliary	140	<del>                                     </del>	IX.	1"
2,3	Solar panels				
	Suppy and install ITS Solar Panels 2.4m2 FT for the Heat Pump				
	Systems				
2.2.5	Type 1A - Lower Primary Girls- solar panels, ITS 2.4m2 FT or				
	equivalent	No	10	R	R
2,4	Recirculation Pumps				
2.4.9	Hostel Type 1A- Girls Lower Primary - HP Hotwater Recirculation				
	pumps and Solar Recirculation pump including , air releave valve &				1_
	loading valve	No	2	R	R
2,5	Rain Water Harvesting Tanks		+		
	Hostel Type 1A Girls-Lower Primary - 5000L Jojo Tanks and				
2.5.14	Accessories with a tap to be used for garden services	No	1	R	R
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			1		
					_
OTALBLO	CK 22 CARRIED FORWARD TO SUMMARY				R

- 1 This Bill of Quantities forms part of the contract documents and is to be read in conjunction therewith.
- 2 All works billed here shall include for the full scope of service specified including but not limited to supply, delivery, installation,
- Quantities indicated here are to be verified by the contractor against the project drawings. All discrepancies shall be brought to the attention of the responsible engineer. Should no queries be raised the contract totals and rates provided shall be deemed
- 4 No variation in rates shall be due based on variation in quantities, rate of exchange or escalation.
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- 6 All works required to execute the scope of works in accordance with the project program and quality requirements are deemed
- 7 Rates provided shall include for fixing, hangers, fittings, transformations, sealant and all other items required to deliver a
- 8 The bill of quantities shall not be used as the basis for material order.
- 9 The values here shall be entered in South African Rands and exclusive of VAT.

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	BLOCK 23 - HOSTEL MASTER				
	District DD D (D L L L L L				
1	PIPING PP-R (Polypropolyne)				
1,1	PP-R Pipe:				
1,1	Hot and Cold Water Piping.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 2.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.1.1	outside dia 20	m	14	R	R
1.1.2	outside dia 20	m	28	R	R
1.1.3	outside dia 25	m	8	R	R
4.2	D				
1,2	Bends 90 deg Electrofusion fitting.		+		
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series \$ 3.2				
	- recours retung out that the series of the		1		
1.2.1	outside dia 16	No	8	R	R
1.2.2	outside dia 20	No	2	R	R
1.2.3	outside dia 25	No	4	R	R
1,3	Tee equal				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
	ressure ruting 3DN 7.4 or ripe series 3.3.2		+		
1.3.1	outside dia 20	No	30	R	R
			1		
1.3.2	outside dia 25	No	15	R	R
1,4	Tee reducing				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2		<del>                                     </del>		
1 4 1	outside diam 25 v 20	No	0	D	D
1.4.1	outside diam 25 x 20	No	8	R	R
1/12	outside diam 20 v 16	No	<b>E</b>	R	R
1.4.2	outside diam 20 x 16	No	5	R	R

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
1.5	Reducer concentric				
1,5					
	Electrofusion fitting. Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series \$ 3.2				
	ressure runing out the orthogones of the				
1.5.1	outside diam 25 x 20	No	3	R	R
1.5.2	outside diam 20 x 16	No	5	R	R
1,6	Union screwed				
1,0	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series \$ 3.2				
	,				
1.6.1	outside dia 20	No	4	R	R
1.6.2	outside dia 25	No	3	R	R
1,7	Socket  Floatrafusion fitting				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
	1 ressure rating 3DN 7.4 or ripe series 3 3.2				
1.7.1	outside dia 20	No	10	R	R
1.7.2	outside dia 25	No	3	R	R
1,8	Female adaptor				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.8.1	outside dia 20	No	4	R	R
1.0.1	Successful and 20	140		· ·	N.
1.8.2	outside dia 25	No	8	R	R
1,9	Male adaptor				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.9.1	outside dia 20	No	4	R	R
1.5.1	500000 did 20	.,,,	<u> </u>		
1.9.2	outside dia 25	No	1	R	R
1.9.5	outside dia 50	No	0	R	R
			<u> </u>		
1.9.6	outside dia 63	No	4	R	R
1.10	Isolating Valves:				
1.10	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
<u> </u>					•

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
1.10.1	outside dia 20	No	4	R	R
	outside dia 25	No	1	R	R
1,11	Non return valves:				
				_	
1.11.1	outside dia 25	No	1	R	R
1 12	Charles				
1,12	Strainers:				
4 42 4				_	_
1.12.1	outside dia 25	No	1	R	R
1,13	They media. Dine Inquistion				
1,13	Thermaflex Pipe Insulation				
1.13.1	outside dia 16	No	22	R	R
1.13.1	outside dia 16	INO	22	N.	N.
1.13.2	outside dia 20	No	14	R	R
1.13.2	outside dia 20	INO	14	N.	IX.
1.13.3	outside dia 25	No	8	R	R
1.13.3	outside did 25	140	•		
2	EQUIPMENT				
2,2	Heat Pump and Geyser Tanks				
	Supply and Install a 200L heat pump heated geyser c/w heat pump				
	and electrical back-up.		1	R	R
2,5	Rain Water Harvesting Tanks				
2.5.14	5000L Jojo Tanks and Accessories with a tap to be used for garden				
2.5.14	services	No	1	R	R
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			-		
			-		
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IOTALBLO	CK 23 CARRIED FORWARD TO SUMMARY				R

- 1 This Bill of Quantities forms part of the contract documents and is to be read in conjunction therewith.
- 2 All works billed here shall include for the full scope of service specified including but not limited to supply, delivery,
- Quantities indicated here are to be verified by the contractor against the project drawings. All discrepancies shall be brought to the attention of the responsible engineer. Should no queries be raised the contract totals and rates provided shall be
- 4 No variation in rates shall be due based on variation in quantities, rate of exchange or escalation.
- 5 Errors and omissions of equipment or material required to execute the project solution specified or indicated on the drawings
- 6 All works required to execute the scope of works in accordance with the project program and quality requirements are
- Rates provided shall include for fixing, hangers, fittings, transformations, sealant and all other items required to deliver a
- 8 The bill of quantities shall not be used as the basis for material order.
- 9 The values here shall be entered in South African Rands and exclusive of VAT.

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	BLOCK 24 - GUARD HOUSE				
1	PIPING PP-R (Polypropolyne)				
1,1	PP-R Pipe:				
	Hot and Cold Water Piping.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 2.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
				_	+_
1.1.1	outside dia 20	m	6	R	R
1,2	Bends 90 deg				
1,4	Electrofusion fitting.				+
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.2.1	outside dia 20	No	10	R	R
1,3	Tee equal				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
	ressure rating objective or ripe series of oil				
1.3.1	outside dia 20	No	3	R	R
1,4	Union screwed				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.4.1	outside dia 20	No	3	R	R
			† •		
1,7	Socket				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				

	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
1.7.1	outside dia 20	No	3	R	R
	Isolating Valves:				
	Electrofusion fitting. Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
F	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.10.1	outside dia 20	No	1	R	R
1,11	Non return valves:				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3. Pressure rating SDR 7.4 or Pipe series S 3.2				
	riessure rating 3DN 7.4 or ripe series 3 3.2				
1.11.1	outside dia 20	No	1	R	R
	Strainers:				
	Electrofusion fitting. Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.12.1	outside dia 20	No	1	R	R
1,13	Thermaflex Pipe Insulation				
	Thermaflex insulation				
1.13.1	outside dia 20	No	0,5	R	R
2	EQUIPMENT				
2,1 H	Hot Water Heaters				
2.1.1	10 litre underbasin electric water heater.	No	1	R	R
2.1.1	to little underpasifi electric water fleater.	No	1	K	N .
+					
+					

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
TOTAL BLO	CK 33 CARRIED FORWARD TO SUMMARY				R

- 1 This Bill of Quantities forms part of the contract documents and is to be read in conjunction therewith.
- 2 All works billed here shall include for the full scope of service specified including but not limited to supply, delivery, installation,
- Quantities indicated here are to be verified by the contractor against the project drawings. All discrepancies shall be brought to the attention of the responsible engineer. Should no queries be raised the contract totals and rates provided shall be deemed
- 4 No variation in rates shall be due based on variation in quantities, rate of exchange or escalation.
- 5 Errors and omissions of equipment or material required to execute the project solution specified or indicated on the drawings
- 6 All works required to execute the scope of works in accordance with the project program and quality requirements are deemed
- 7 Rates provided shall include for fixing, hangers, fittings, transformations, sealant and all other items required to deliver a
- 8 The bill of quantities shall not be used as the basis for material order.
- 9 The values here shall be entered in South African Rands and exclusive of VAT.

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	DI COM OF TWEE ALCIPIO				
	BLOCK 25 TYPE 1A GIRLS				
1	PIPING PP-R (Polypropolyne)		<u> </u>		
_	The state of the s				
1,1	PP-R Pipe:				
	Hot and Cold Water Piping.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 2. Pressure rating SDR 7.4 or Pipe series S 3.2				
	riessure rating 3DN 7.4 or ripe series 3 3.2				
1.1.1	outside dia 20	m	120	R	R
1.1.2	outside dia 25	m	40	R	R
				_	
1.1.3	outside dia 40	m	20	R	R
1.1.4	outside dia 50	m	10	R	R
1.1.4	outside did 30		10		· ·
1,2	Bends 90 deg				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.2.1	outside dia 20	No	80	R	R
1.2.2	outside dia 25	No	30	R	R
1.2.3	outside dia 32	No	30	R	R
1.2.4	outside dia 40	No	15	R	R
1.2.4	outside dia 40	NO	13	N	K
1,3	Tee equal		1		
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.3.1	outside dia 20	No	30	R	R
1.3.2	outside dia 25	No	15	R	R
1.3.3	outside dia 40	No	10	R	R
1.4	Too raducing		1		
1,4	Tee reducing		]		1

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.4.1	outside diam 25 x 20	No	15	R	R
		, , ,			
1.4.2	outside diam 32 x 20	No	5	R	R
1,5	Reducer concentric				
	Electrofusion fitting. Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series \$ 3.2				
1.5.1	outside diam 25 x 20	No	20	R	R
1.5.2	outside diam 40 x 20	No	10	R	R
-			-		
1,6	Union screwed		<del> </del>		
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.6.1	outside dia 20	No	10	R	R
1.6.1	outside dia 20	NO	10	K	K
1.6.2	outside dia 25	No	10	R	R
1.6.3	outside dia 32	No	10	R	R
1,7	Socket				
	Electrofusion fitting. Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.7.1	outside dia 20	No	10	R	R
173	autoida dia 25	NI.	10	D	D
1.7.2	outside dia 25	No	10	R	R
1.7.3	outside dia 32	No	6	R	R
1,8	Female adaptor				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.8.1	outside dia 20	No	16	R	R
1.8.2	outside dia 25	No	8	R	R
1.8.3	outside dia 32	No	6	R	R
100	autoida dia C2	N1 -	40	<u> </u>	D.
1.8.6	outside dia 63	No	10	R	R
1			1	1	1
1,9	Male adaptor				

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.9.1	outside dia 20	No	4	R	R
1.9.2	outside dia 25	No	0	R	R
		-			
1.9.3	outside dia 32	No	0	R	R
1.9.4	outside dia 40	No	4	R	R
2.51.	Control of the Total				
1.9.5	outside dia 50	No	0	R	R
1.9.6	outside dia 63	No	4	R	R
1.3.0	outside dia 03	NO	4	N	K
1.10	Isolating Valves:				
	Electrofusion fitting. Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
4.40.4				_	
1.10.1	outside dia 20	No	50	R	R
1,11	Non return valves:				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.11.1	outside dia 20	No	15	R	R
1.11.2	outside dia 25	No	10	R	R
1,12	Strainers: Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.12.1	outside dia 20	No	10	R	R
1.12.2	outside dia 40	No	1	R	R
-					
1,13	Thermaflex Pipe Insulation				
1,13	Thermaflex Pipe insulation  Thermaflex insulation				
1.13.1	outside dia 20	No	80	R	R
1.13.2	outside dia 25	No	30	R	R
					·
1.13.3	outside dia 32	No	30	R	R
<u> </u>					
2	EQUIPMENT				
•				-	-

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
2.4	U				1
2,1	Heat Pumps Supply install and commission Heat Pumps complete with flat plate		+		
	solar collector recirculation pumps for solar system and solar				
	system.				
	Include 10mm of PP-R piping insulation, 2-off 20mm vacuum				
	breakers, 15mm expansion relief valve, lever ball valves, mixing				
	valve, temperature differential controller, hot water pipe insulation				
	and truss strengthening where required. Units to be SANS 1037 and				
	SANS 151 with Certificate. Carry a 10 Year warranty. Pressure rating				
	of 400 kPa.				
2.4.0	Hantal Tura 4A Cida Laura Dianana 4*47IMUD (anhath				+
2.1.9	Hostel Type 1A - Girls - Lower Primary - 1*17kW HP for both	Na	1	ь.	_
	Sanitary and UFH	No	1	R	R
2,2	Heat Pump and Geyser Tanks		+		
2,2	Supply and Install Hot Water Storage Tanks for Sanitary Use and		+		
	Underflow Heatings as per the specifications				
2.2.8	Type 1A Lower Primary - 2000L Tank linked to Geyser for sanitary				
	Type 1A Lower Primary	No	1	R	R
	1,750 27.20 70.7 7.111.5.7		<del>                                     </del>		
2,3	Solar panels				
	Suppy and install ITS Solar Panels 2.4m2 FT for the Heat Pump				
	Systems				
2.2.5	Type 1A - Lower Primary Girls- solar panels, ITS 2.4m2 FT or				
	equivalent	No	10	R	R
2,4	Recirculation Pumps				
2.4.9	Hostel Type 1A- Girls Lower Primary - HP Hotwater Recirculation				
	pumps and Solar Recirculation pump including , air releave valve &	No		ь	_
	loading valve	No	2	R	R
2,5	Rain Water Harvesting Tanks				
	Hostel Type 1A Girls-Lower Primary - 5000L Jojo Tanks and		1		
2.5.14	Accessories with a tap to be used for garden services	No	1	R	R
	6				
OTALBLO	CK 25 CARRIED FORWARD TO SUMMARY				R

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- 2 All works billed here shall include for the full scope of service specified including but not limited to supply, delivery, installation,
- Quantities indicated here are to be verified by the contractor against the project drawings. All discrepancies shall be brought to the attention of the responsible engineer. Should no queries be raised the contract totals and rates provided shall be deemed
- 4 No variation in rates shall be due based on variation in quantities, rate of exchange or escalation.
- 5 Errors and omissions of equipment or material required to execute the project solution specified or indicated on the drawings
- 6 All works required to execute the scope of works in accordance with the project program and quality requirements are deemed
- 7 Rates provided shall include for fixing, hangers, fittings, transformations, sealant and all other items required to deliver a
- 8 The bill of quantities shall not be used as the basis for material order.
- 9 The values here shall be entered in South African Rands and exclusive of VAT.

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	BLOCK 26 TYPE 1A GIRLS				
1	PIPING PP-R (Polypropolyne)				
1,1	PP-R Pipe:				
	Hot and Cold Water Piping.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 2.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.1.1	outside dia 20	m	120	R	R
1.1.2	outside dia 25	m	40	R	R
1.1.3	outside dia 40	pa	20	R	R
1.1.3	outside dia 40	m	20	ĸ	ĸ
1.1.4	outside dia 50	m	10	R	R
1,2	Bends 90 deg				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.2.1	outside dia 20	No	80	R	R
1.2.1	outside dia 20	INO	80	ĸ	N.
1.2.2	outside dia 25	No	30	R	R
1.2.3	outside dia 32	No	30	R	R
1.2.4	outside dia 40	No	15	R	R
4.0					
1,3	Tee equal Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.3.1	outside dia 20	No	30	R	R
1.3.2	outside dia 25	No	15	R	R
1.3.3	outside dia 40	No	10	R	R
1.4	Too radusing				
1,4	Tee reducing				

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.4.1	outside diam 25 x 20	No	15	R	R
		, , ,			
1.4.2	outside diam 32 x 20	No	5	R	R
1,5	Reducer concentric				
	Electrofusion fitting. Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series \$ 3.2				
1.5.1	outside diam 25 x 20	No	20	R	R
1.5.2	outside diam 40 x 20	No	10	R	R
-			-		
1,6	Union screwed		<del> </del>		
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.6.1	outside dia 20	No	10	R	R
1.6.1	outside dia 20	NO	10	K	K
1.6.2	outside dia 25	No	10	R	R
1.6.3	outside dia 32	No	10	R	R
1,7	Socket				
	Electrofusion fitting. Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.7.1	outside dia 20	No	10	R	R
173	autoida dia 25	NI.	10	D	D
1.7.2	outside dia 25	No	10	R	R
1.7.3	outside dia 32	No	6	R	R
1,8	Female adaptor				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.8.1	outside dia 20	No	16	R	R
1.8.2	outside dia 25	No	8	R	R
1.8.3	outside dia 32	No	6	R	R
100	autoida dia C2	N1 -	40	<u> </u>	D.
1.8.6	outside dia 63	No	10	R	R
1			1	1	1
1,9	Male adaptor				

	-1				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.9.1	outside dia 20	No	4	R	R
1.5.1	outside did 20	110	7	· ·	ı.
1.9.2	outside dia 25	No	0	R	R
1.9.3	outside dia 32	No	0	R	R
1.9.4	outside dia 40	No	4	R	R
1.9.4	outside dia 40	INO	4	K	N .
1.9.5	outside dia 50	No	0	R	R
1.9.6	outside dia 63	No	4	R	R
1.10					
1.10	Isolating Valves: Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.10.1	outside dia 20	No	50	R	R
1 11	Non votium valvos				
1,11	Non return valves: Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.11.1	outside dia 20	No	15	R	R
1.11.2	outside dia 25	No	10	R	R
1.11.2	outside did 25	110	10	· ·	ı.
1,12	Strainers:				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.12.1	outside dia 20	No	10	R	R
1.12.2	outside dia 40	No	1	R	R
4.45	The second of the Direct based on the				
	Thermaflex Pipe Insulation Thermaflex insulation				
	THE THURS HIS GRADUIT				
1.13.1	outside dia 20	No	80	R	R
1.13.2	outside dia 25	No	30	R	R
4 10 5			22		
1.13.3	outside dia 32	No	30	R	R
2	EQUIPMENT				
2,1	Heat Pumps				

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	Supply install and commission Heat Pumps complete with flat plate				
	solar collector recirculation pumps for solar system and solar				
	system.				
	Include 10mm of PP-R piping insulation, 2-off 20mm vacuum				
	breakers, 15mm expansion relief valve, lever ball valves, mixing				
	valve, temperature differential controller, hot water pipe insulation				
	and truss strengthening where required. Units to be SANS 1037 and				
	SANS 151 with Certificate. Carry a 10 Year warranty. Pressure rating				
	of 400 kPa.				
2.1.9	Hostel Type 1A - Girls - Lower Primary - 1*17kW HP for both				
	Sanitary and UFH	No	1	R	R
2,2	Heat Pump and Geyser Tanks				
	Supply and Install Hot Water Storage Tanks for Sanitary Use and				
	Underflow Heatings as per the specifications				
2.2.8	Type 1A Lower Primary - 2000L Tank linked to Geyser for sanitary				
	Type 1A Lower Primary	No	1	R	R
2,3	Solar panels				
	Suppy and install ITS Solar Panels 2.4m2 FT for the Heat Pump				
	Systems				
2.2.5	Type 1A - Lower Primary Girls- solar panels, ITS 2.4m2 FT or				
	equivalent	No	10	R	R
2,4	Recirculation Pumps				
2.4.9	Hostel Type 1A- Girls Lower Primary - HP Hotwater Recirculation				
	pumps and Solar Recirculation pump including , air releave valve &				
	loading valve	No	2	R	R
2,5	Rain Water Harvesting Tanks				
2.5.14	Hostel Type 1A Girls-Lower Primary - 5000L Jojo Tanks and				
2.3.14	Accessories with a tap to be used for garden services	No	1	R	R
TOTALBLO	CK 26 CARRIED FORWARD TO SUMMARY				R

### **Preliminaries to the Bill**

- 1 This Bill of Quantities forms part of the contract documents and is to be read in conjunction therewith.
- 2 All works billed here shall include for the full scope of service specified including but not limited to supply, delivery,
- Quantities indicated here are to be verified by the contractor against the project drawings. All discrepancies shall be brought to the attention of the responsible engineer. Should no queries be raised the contract totals and rates provided shall be
- 4 No variation in rates shall be due based on variation in quantities, rate of exchange or escalation.
- 5 Errors and omissions of equipment or material required to execute the project solution specified or indicated on the drawings
- 6 All works required to execute the scope of works in accordance with the project program and quality requirements are
- Rates provided shall include for fixing, hangers, fittings, transformations, sealant and all other items required to deliver a
- 8 The bill of quantities shall not be used as the basis for material order.
- 9 The values here shall be entered in South African Rands and exclusive of VAT.

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	BLOCK 33 - GUARD HOUSE				
1	PIPING PP-R (Polypropolyne)				
4.4					
1,1	PP-R Pipe:				
	Hot and Cold Water Piping. Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 2.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
	- resource rading out the restrict of the				
1.1.1	outside dia 20	m	6	R	R
1,2	Bends 90 deg				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
121		No	10	<b>D</b>	 
1.2.1	outside dia 20	No	10	R	R
1,3	Tee equal				
1,3	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.3.1	outside dia 20	No	3	R	R
1,4	Union screwed				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2		+		+
1.4.1	outside dia 20	No	3	R	R
2,7,2	3.00.00	.,,	<del>                                     </del>		···
1,7	Socket		1		
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				

	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
1.7.1	outside dia 20	No	3	R	R
	Isolating Valves:				
	Electrofusion fitting. Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
F	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.10.1	outside dia 20	No	1	R	R
1,11	Non return valves:				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3. Pressure rating SDR 7.4 or Pipe series S 3.2				
	riessure rating 3DN 7.4 or ripe series 3 3.2				
1.11.1	outside dia 20	No	1	R	R
	Strainers:				
	Electrofusion fitting. Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.12.1	outside dia 20	No	1	R	R
1,13	Thermaflex Pipe Insulation				
	Thermaflex insulation				
1.13.1	outside dia 20	No	0,5	R	R
2	EQUIPMENT				
2,1 H	Hot Water Heaters				
2.1.1	10 litre underbasin electric water heater.	No	1	R	R
2.1.1	to little underpasifi electric water fleater.	No	1	K	N.
+					
+					

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
TOTAL BLO	CK 33 CARRIED FORWARD TO SUMMARY				R

## **Preliminaries to the Bill**

- 1 This Bill of Quantities forms part of the contract documents and is to be read in conjunction therewith.
- 2 All works billed here shall include for the full scope of service specified including but not limited to supply, delivery, installation,
- Quantities indicated here are to be verified by the contractor against the project drawings. All discrepancies shall be brought to the attention of the responsible engineer. Should no queries be raised the contract totals and rates provided shall be deemed
- 4 No variation in rates shall be due based on variation in quantities, rate of exchange or escalation.
- 5 Errors and omissions of equipment or material required to execute the project solution specified or indicated on the drawings
- 6 All works required to execute the scope of works in accordance with the project program and quality requirements are deemed
- 7 Rates provided shall include for fixing, hangers, fittings, transformations, sealant and all other items required to deliver a
- 8 The bill of quantities shall not be used as the basis for material order.
- 9 The values here shall be entered in South African Rands and exclusive of VAT.

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	BLOCK 34 REFUSE AREA				
1	PIPING PP-R (Polypropolyne)				
1,1	PP-R Pipe:				
	Hot and Cold Water Piping.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 2.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.1.1	outside dia 20	m	15	R	R
1.1.1	outside dia 20	111	13	N .	N .
1,2	Bends 90 deg				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.2.1	outside dia 20	No	12	R	R
1,6	Reducer concentric				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.01				_	
1.6.1	outside diam 25 x 20	No	1	R	R
1.6.2	autoida diana 22 / 20	Na	1	R	R
1.6.2	outside diam 32 x 20	No	1	ĸ	K
1.6.3	outside diam 32 x 25	No	1	R	R
1.0.5	outside diam 32 x 25	NO		K	K
1.6.4	outside diam 40 x 20	No	1	R	R
1.0.1	outside didin 10 X20	110			
1.6.5	outside diam 40 x 25	No	1	R	R
1.6.6	outside diam 40 x 32	No	1	R	R
1.6.7	outside diam 50 x 20	No	1	R	R
1.6.8	outside diam 50 x 25	No	1	R	R
1,7	Union screwed				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
1.7.1	outside dia 20	No	30	R	R
1,8	Socket				
-	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.8.1	outside dia 20	No	8	R	R
1,9	Female adaptor				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.9.1	outside dia 20	No	4	R	R
1.10	Male adaptor				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series \$ 3.2				
1 10 1		Na	4		R
1.10.1	outside dia 20	No	4	R	K
1,1	Isolating Valves:				
1,1	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series \$ 3.2				
1.11.1	outside dia 20	No	1	R	R
	*				
	RIED BLOCK 13 FORWARD TO SUMMARY				R

### **Preliminaries to the Bill**

- 1 This Bill of Quantities forms part of the contract documents and is to be read in conjunction therewith.
- 2 All works billed here shall include for the full scope of service specified including but not limited to supply, delivery,
- Quantities indicated here are to be verified by the contractor against the project drawings. All discrepancies shall be brought to the attention of the responsible engineer. Should no queries be raised the contract totals and rates provided shall be
- 4 No variation in rates shall be due based on variation in quantities, rate of exchange or escalation.
- 5 Errors and omissions of equipment or material required to execute the project solution specified or indicated on the drawings
- 6 All works required to execute the scope of works in accordance with the project program and quality requirements are
- Rates provided shall include for fixing, hangers, fittings, transformations, sealant and all other items required to deliver a
- 8 The bill of quantities shall not be used as the basis for material order.
- 9 The values here shall be entered in South African Rands and exclusive of VAT.

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
			T		
	BLOCK M - GUARD HOUSE				
1	PIPING PP-R (Polypropolyne)				
1,1	PP-R Pipe:				
1,1	Hot and Cold Water Piping.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 2.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.1.1	outside dia 20	m	6	R	R
1,2	Bends 90 deg				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
	Fressure rating 3DN 7.4 or Fipe series 3.3.2				
1.2.1	outside dia 20	No	10	R	R
1,3	Tee equal				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
			<u> </u>	_	1_
1.3.1	outside dia 20	No	3	R	R
1,4	Union screwed		1		
1,4	Electrofusion fitting.		+		
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
	-				
1.4.1	outside dia 20	No	3	R	R
1,7	Socket				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS 15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
	r ressure rading SDN 7.4 or ripe series 3.3.2		1		

	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
1.7.1	outside dia 20	No	3	R	R
	Isolating Valves:				
	Electrofusion fitting. Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
F	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.10.1	outside dia 20	No	1	R	R
1,11	Non return valves:				
	Electrofusion fitting.				
	Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3. Pressure rating SDR 7.4 or Pipe series S 3.2				
	riessure rating 3DN 7.4 or ripe series 3 3.2				
1.11.1	outside dia 20	No	1	R	R
	Strainers:				
	Electrofusion fitting. Polypropylene Random Co-Polymer (PPR) in accordance with SANS				
	15874 Part 3.				
	Pressure rating SDR 7.4 or Pipe series S 3.2				
1.12.1	outside dia 20	No	1	R	R
1,13	Thermaflex Pipe Insulation				
	Thermaflex insulation				
1.13.1	outside dia 20	No	0,5	R	R
2	EQUIPMENT				
2,1 H	Hot Water Heaters				
2.1.1	10 litre underbasin electric water heater.	No	1	R	R
2.1.1	to little underpasifi electric water fleater.	No	1	K	N .
+					
+					

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
TOTAL BLO	CK M CARRIED FORWARD TO SUMMARY				R

# **MOEDWIL COMBINED SCHOOL**

ITEM	BILL NUMBER	TOTAL AMOUNT
	SUMMARY OF BILLS OF QUANTITIES WET SERVICES - WET SERVICES INSTALLATIONS	
1	PRELIMINARY & GENERALS	R
2	BLOCK 6	R
3	BLOCK 7	R
4	BLOCK 8	R
5	DI OCK O	D.
5	BLOCK 9	R
6	BLOCK 10	R
7	BLOCK 11	R
8	BLOCK 12	R
0	BLOCK 12	N.
9	BLOCK 13	R
10	BLOCK 14	R
11	BLOCK 15	R
- ' '	DLOCK 13	N.
12	BLOCK 16	R
13	BLOCK 17	R
14	BLOCK 18	R
- ' '	DIOCK 10	· ·
15	BLOCK 19	R
16	BLOCK 20	R
17	BLOCK 21	R
18	BLOCK 22	R
40	DI OCK 22	
19	BLOCK 23	R
20	BLOCK 24	R

21	BLOCK 25	R
22	BLOCK 26	R
23	BLOCK 33	R
23	DLOCK 33	I N
24	BLOCK 34	R
25	BLOCK M	R
TOTAL A	MOUNT PART D WET SERVICES CARRIED FORWARD TO SUMMARY.	<u>R</u>

### MOEDWIL COMBINED SCHOOL

#### WET SERVICES - DRAINAGE

#### **Preliminaries to the Bill**

- 1 This Bill of Quantities forms part of the contract documents and is to be read in conjunction therewith.
- 2 All works billed here shall include for the full scope of service specified including but not limited to supply, delivery, installation, commissioning, documentation, building tuning, project closeout and administrative requirements, and all works as necessary to provide a working product in accordance with the project
- Quantities indicated here are to be verified by the contractor against the project drawings. All discrepancies shall be brought to the attention of the responsible engineer. Should no queries be raised the contract totals and rates provided shall be deemed sufficient for the due execution of the works in accordance with the engineers intent communicated through the project drawings and these specifications.
- 4 No variation in rates shall be due based on variation in quantities, rate of exchange or escalation.
- 5 Errors and omissions of equipment or material required to execute the project solution specified or indicated on the drawings shall be brought to the attention of the responsible engineer for clarification, failing which the provision of such items shall be deemed included in the project rates.
- 6 All works required to execute the scope of works in accordance with the project program and quality requirements are deemed included in the rates and totals provided below.
- 7 Rates provided shall include for fixing, hangers, fittings, transformations, sealant and all other items required to deliver a functional system in accordance with the design intent and specifications. Rate includes the supply,delivery,labour and installation of equipment
- 8 The bill of quantities shall not be used as the basis for material order.
- 9 The values here shall be entered in South African Rands and exclusive of VAT.

#### **BILL 1: PRELIMINARY & GENERALS**

1	P&Gs	Unit	Quantity	Rate	Amount
1,1	Site Establishment	lot	1	R	R
1,2	Workshop Drawings	No	3	R	R
1.3	Builder's Works  The Contractor shall make provision for sleeves, building swraps and all other supporting equipment to complete the installation.	lot			
1.4	OPERATING AND MAINTENANCE MANUALS  The Contractor shall make provision for 4 x copies of O & M  Manuals in accordance with the detail in the Standard	No	3	R	R
1.5	TRAINING OF CLIENTS STAFF  The Contractor shall make provision for 1 full day's training of the Clients Staff, on the operation of the installation.	1	5	R	R
1.6	AS-BUILT LAYOUT DRAWINGS  The Contractor shall make provision for a detailed set of As Fitted Layout drawings of the entire installation, as the project progresses.	No	3	R	R
1.7	COMMISIONING AND TESTING  The Contractor shall make provision to commission and pressure test the installation during construction	lot	1	R	R

P&G Page 1

1.8	MAINTENANCE AND GUARANTEE The Contractor shall make provision for 1 x Full years Maintenance and Guarantee of the entire installation. 11 x Standard Maintenance visits and 1 x Major service is required throughout the 12 months.	lot	12	R	R
1.9	External uPVC or HDPE pipework connection from site reticulation undergound pipework to connect to internal copper	No	6	R	R
1.10	Contingency Amount: Included for the future unforeseen future changes.	lot			
1.11	Safety Manual to OHS and Construction regulations standard	lot	1	R	R
1.12	Programming of the works to meet the dealine dates	lot	1	R	R
	TOTAL CARRIED FORWARD TO SUMMARY				R

AG Page 2

## SEWER SERVICES - HOSTELS - 1A TYPE BOYS BLOCK 6

TEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
1	SEWER BILL OF QUANTITY				
	Supply, erection & commissioning of complete drainage system acc to				
	SANS 10252-2				
1.1	SVP Piping				
	Complete with all necessary supports and fittings to complete the				
	installation. Above ground drainage: All Bends to be a type fitted with				
	an inspection eye, and inspection chambers to be of steel manufacture.				
1.1.1	110 mm φ piping to SANS 791 and SANS 967	m	10	R	R
L.1.2	110 mm $\phi$ UG piping to SANS 791 and SANS 967	m	110	R	R
L.1.3	40 mm φ piping to SANS 791 and SANS 967	m	22	R	R
L.1.4	32 mm φ piping to SANS 791 and SANS 967	m	30	R	R
1.2	SVP Fittings				
	SVP Fittings. Fittings are to be fitted with deep seal traps.				
L.2.1	ф 110 mm 90° bend	No	24	R	R
.2.2	φ 110 mm 90° bend with IE	No	12	R	R
.2.3	φ 110 mm Stub Stack with 2 way vent valve	No	6	R	R
.2.4	ф 110 mm 135° bend.	No	22	R	R
.2.5	φ 110 mm Y-junction 45°	No	22	R	R
.2.6	φ 110 mm Y-junction 45° with inspection eye.	No	2	R	R
.2.7	φ 110 mm aluminium pipe clips.	No	20	R	R
.2.8	φ 110 mm Access Point on SVP	No	2	R	R
2.9	φ 110 mm 45° Rodding eye	No	3	R	R
.2.10	φ 110 mm saddle connector to fit 32mm pipe	No	1	R	R
.2.11	$\phi$ 110 Reducing junction with double access heel 87,5° 100 x 40	No	2	R	R
.2.12	φ 110 Access double junction 100 x 40 90°	No	2	R	R
	,				
.2.13	ф 40 mm 90° bend	No	10	R	R
.2.14	φ 40 mm 90° plain bend with IE	No	10	R	R
.2.15	φ 40 mm plain juction 87,5°	No	2	R	R
.2.16	φ 40 mm brackets	No	6	R	R
.2.17	φ 40 x 32 reducer	No	2	R	R
.2.18	φ 40 mm brackets	No	12	R	R
.2.19	φ 40 admittance air valve/vent valve	No	2	R	R
.2.20	φ 32 mm 90° bend	No	8	R	R
.2.21	φ 32 mm 90° bend with IE	No	4	R	R
.2.22	φ 32 mm plain juction 87,5°	No	6	R	R
.2.23	φ 32 mm brackets	No	18	R	R
1.3	General items				
	General sewage equipment				
3.1					
1.3.2	Concrete gulley complete with gulley trap, head and grate with reducer				
	200x100mm	No	6	R	R
3.3	Connection to 110mm min sewer line	No	2	R	R
3.4	φ 32 mm Bottle Trap for wash hand basins and urinals.	No	14	R	R
3.5	φ 32 mm End Female Cap	No	6	R	R
3.6	φ 40 mm Shower Trap	No	6	R	R
1.3.7	φ 40 mm S Trap for kitchen sink.	No	2	R	R
L.3.8	φ 110 mm Pan connector to toilet	No	10	R	R
		ļ			
1.4	Sundries	Sum	-	-	R
ΔΙ ΤΥΕ	PE BLOCK 6 CARRIED FORWARD TO SUMMARY				R

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SEWER SERV	/ICES - 2A BOYS BLOCK 7				
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
1	SEWER BILL OF QUANTITY				
	Supply, erection & commissioning of complete drainage system				
	acc to SANS 10252-2				
1.1	SVP Piping  Complete with all necessary supports and fittings to complete the				
	installation. Above ground drainage: All Bends to be a type fitted				
	with an inspection eye, and inspection chambers to be of steel				
	manufacture.				
1.1.1	110 mm $\phi$ piping to SANS 791 and SANS 967	m	10	R	R
1.1.2	110 mm $\phi$ UG piping to SANS 791 and SANS 967	m	104	R	R
1.1.3	75 mm φ piping to SANS 791 and SANS 967	m	4	R	R
1.1.4	50 mm φ piping to SANS 791 and SANS 967	m	5	R	R
1.1.5	40 mm φ piping to SANS 791 and SANS 967	m	15	R	R
1.1.6	32 mm φ piping to SANS 791 and SANS 967	m	18	R	R
1.2	SVP Fittings				
1.2	SVE FIGURES				
	SVP Fittings. Fittings are to be fitted with deep seal traps.				
	The state of the s				
1.2.1	φ 110 mm 90° bend	No	12	R	R
1.2.2	φ 110 mm 90° bend with IE	No	5	R	R
1.2.3	φ 110 mm 90° bend with vent horn.	No	1	R	R
1.2.4	φ 110 mm 135° bend.	No	12	R	R
1.2.5	φ 110 mm Y-junction 45°	No	14	R	R
1.2.6	φ 110 mm Y-junction 45° with inspection eye.	No	1 20	R	R
1.2.7 1.2.8	φ 110 mm aluminium pipe clips.  φ 110 mm Access Point on SVP	No No	20	R	R
1.2.8	φ 110 mm 45° Rodding eye	No	4	R	R
1.2.10	φ 110 mm saddle connector to fit 32mm pipe	No	5	R	R
1.2.11	φ 110 x 32 Eccentric Reducer	No	1	R	R
1.2.12	φ 110 mm Stub Stack with 2 way vent valve	No	2	R	R
1.2.13	φ 75 mm 90° bend	No	2	R	R
1.2.14	φ 75 mm 90° bend with IE	No	2	R	R
1.2.15	φ 75 mm junction 90°	No	3	R	R
1.2.16	φ 75 mm to φ 50 reducer junction 90°	No	3	R	R
1 2 17	φ E0 mm 00° hond	No	1	R	D
1.2.17 1.2.18	φ 50 mm 90° bend φ 50 mm junction 90°	No No	4	R	R R
1.2.19	φ 50 mm to φ40 reducer junction 90°	No	2	R	R
	y so min to y to reduce junction so				
1.2.20	φ 40 mm 90° plain bend	No	11	R	R
1.2.21	φ 40 mm 90° bend with IE	No	2	R	R
1.2.22	ф 40 mm 135° bend.	No	1	R	R
1.2.23	ф 40 mm 87,5° Junction	No	3	R	R
1.2.24	φ 40 mm aluminium pipe clip.brackets	No	12	R	R
1.2.25	φ 40 mm vent valve	No	3	R	R
1.2.26	φ 32 mm 90° plain bend	No	8	R	R
1.2.27	φ 32 mm 90° bend with IE	No No	4	R	R
1.2.21	4 52 mm 50 being with 12	140	7		<u> </u>
1.3	General items				
	General sewage equipment				
1.3.1	Concrete gulley complete with gulley trap, head and grate with				
	reducer 200x100mm	No	4	R	R
1.3.2	Connection to 110mm min sewer line	No	2	R	R
1.3.3	φ 32 mm Bottle Trap for wash hand basins and rinals.	No	9	R	R
1.3.4	φ 32 mm End Female Cap	No	2	R	R

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
1.3.5	φ 40 mm S Trap for wash toughs.	No	8	R	R
1.3.6	ψ 40 mm Shayar Tran		6	R	R
	φ 40 mm Shower Trap	No			
1.3.7	ф 40 mm bath traps	No	2	R	R
1.3.8	φ 40 mm S Trap for kitchen sink.	No	1	R	R
1.3.9	φ 110 mm Pan connector to toilet	No	5	R	R
1.4	Sundries	Sum	-	-	R
TOTAL BLOC	K 7 CARRIED FORWARD TO SUMMARY				R

	1				
TEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
1	SEWER BILL OF QUANTITY				
	Supply, erection & commissioning of complete drainage system				
	acc to SANS 10252-2				
1.1	SVP Piping				
	Complete with all necessary supports and fittings to complete the				
	installation. Above ground drainage: All Bends to be a type fitted with an inspection eye, and inspection chambers to be of steel				
	manufacture.				
1.1.1	110 mm $\phi$ piping to SANS 791 and SANS 967	m	10	R	R
1.1.2	110 mm $\phi$ UG piping to SANS 791 and SANS 967	m	104	R	R
1.1.3	75 mm φ piping to SANS 791 and SANS 967	m	4	R	R
1.1.4	50 mm φ piping to SANS 791 and SANS 967	m	5	R	R
1.1.5	40 mm φ piping to SANS 791 and SANS 967	m	15	R	R
1.1.6	32 mm φ piping to SANS 791 and SANS 967	m	18	R	R
1.2	SVP Fittings				
	SVP Fittings. Fittings are to be fitted with deep seal traps.	-			
1.2.1	φ 110 mm 90° bend	No	12	R	R
1.2.2	φ 110 mm 90° bend with IE	No	5	R	R
1.2.3	φ 110 mm 90° bend with vent horn.	No	1	R	R
1.2.4	φ 110 mm 135° bend.	No	12	R	R
1.2.5	φ 110 mm Y-junction 45°	No	14	R	R
1.2.6	φ 110 mm Y-junction 45° with inspection eye.	No	1	R	R
1.2.7	φ 110 mm aluminium pipe clips.	No	20	R	R
1.2.8	φ 110 mm Access Point on SVP	No	2	R	R
1.2.9	φ 110 mm 45° Rodding eye	No	4	R	R
1.2.10	φ 110 mm saddle connector to fit 32mm pipe  φ 110 x 32 Eccentric Reducer	No	5	R R	R R
L.2.11 L.2.12	φ 110 x 32 Eccentric Reducer  φ 110 mm Stub Stack with 2 way vent valve	No No	2	R	R
1.2.12	Ψ 110 mm Stub Stack with 2 way vent valve	NO		K	- K
1.2.13	ф 75 mm 90° bend	No	2	R	R
L.2.14	φ 75 mm 90° bend with IE	No	2	R	R
1.2.15	φ 75 mm junction 90°	No	3	R	R
1.2.16	φ 75 mm to φ 50 reducer junction 90°	No	3	R	R
L.2.17	φ 50 mm 90° bend	No	1	R	R
L.2.18	φ 50 mm junction 90°	No	4	R	R
l.2.19	φ 50 mm to φ40 reducer junction 90°	No	2	R	R
1.2.20	φ 40 mm 90° plain bend	No	11	R	R
L.2.21	φ 40 mm 90° bend with IE	No	2	R	R
1.2.22	φ 40 mm 135° bend.	No	1	R	R
1.2.23	φ 40 mm 87,5° Junction	No	3	R	R
1.2.24	φ 40 mm aluminium pipe clip.brackets	No	12	R	R
1.2.25	φ 40 mm vent valve	No	3	R	R
1 2 26	A 22 mans 00° milein hound	N	0	D	- D
1.2.26	φ 32 mm 90° plain bend φ 32 mm 90° bend with IE	No No	8 4	R R	R R
L. Z. Z /	W 32 IIIII 30 DEIIU WILII IE	No	4	n.	
1.3	General items				+
1.3	General sewage equipment				_
	Some of settings equipment				+
1.3.1	Concrete gulley complete with gulley trap, head and grate with				+
	reducer 200x100mm	No	4	R	R
1.3.2	Connection to 110mm min sewer line	No	2	R	R
1.3.3	φ 32 mm Bottle Trap for wash hand basins and rinals.	No	9	R	R
1.3.4	φ 32 mm End Female Cap	No	2	R	R

No

2

R

R

1.3.4

φ 32 mm End Female Cap

ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
1.3.5	φ 40 mm S Trap for wash toughs.	No	8	R	R
1.3.6	40 mars Chausar Trans		6	R	R
	φ 40 mm Shower Trap	No			
1.3.7	φ 40 mm bath traps	No	2	R	R
1.3.8	φ 40 mm S Trap for kitchen sink.	No	1	R	R
1.3.9	φ 110 mm Pan connector to toilet	No	5	R	R
1.4	Sundries	Sum	-	-	R
				<u> </u>	
					<del> </del>
				<u> </u>	
TOTAL BLOC	K 8 CARRIED FORWARD TO SUMMARY				R -

SEWER BILL OF QUANTITY						
Supply, erection & commissioning of complete drainage system act to SANS 10252-2		11 1	UNIT	QUANTITY	RATE	AMOUN
acc to SANS 1025-2-2  1.1 SVP Piping Complete with all necessary supports and fittings to complete the installation. Above ground drainage: All Bends to be a type fitted with an inspection eye, and inspection chambers to be a fsteel manufacture.  1.1.1 110 mm φ piping to SANS 791 and SANS 967 m 76 R R  1.1.2 110 mm φ piping to SANS 791 and SANS 967 m 3 R R  1.1.3 50 mm φ piping to SANS 791 and SANS 967 m 3 R R  1.1.4 40 mm φ piping to SANS 791 and SANS 967 m 40 R R  1.1.5 22 mm φ piping to SANS 791 and SANS 967 m 40 R R  1.1.5 S2 mm φ piping to SANS 791 and SANS 967 m 15 R R  1.2 SVP Fittings  SVP Fittings  SVP Fittings.  SVP Fittings are to be fitted with deep seal traps.  1.2.1 φ 110 mm 90° bend with 1E No 5 R R  1.2.2 φ 110 mm 90° bend with tel No 5 R R  1.2.3 φ 110 mm 90° bend with tel No 5 R R  1.2.4 φ 110 mm 90° bend with tel No 5 R R  1.2.5 φ 110 mm 135° bend. No 15 R R  1.2.6 φ 110 mm 130° bend. No 15 R R  1.2.7 φ 110 mm 30° bend with tel No 15 R R  1.2.8 φ 110 mm Access Point on SVP No 20 R R  1.2.9 φ 110 mm Access Point on SVP No 6 R R  1.2.9 φ 110 mm Access Point on SVP No 6 R R  1.2.1 φ 110 mm 320° bend with 1E No 20 R R  1.2.2 φ 110 mm 320° bend with 1E No 20 R R  1.2.3 φ 110 mm Access Point on SVP No 6 R R  1.2.4 φ 110 mm 320° bend with 1E No 20 R R  1.2.5 φ 110 mm Access Point on SVP No 6 R R  1.2.6 φ 110 mm 320° bend with 1E No 20 R R  1.2.9 φ 110 mm 320° bend with 1E No 20 R R  1.2.1 φ 110 mm 320° bend with 1E No 3 R R  1.2.2 φ 110 mm 320° bend with 1E No 3 R R  1.2.3 φ 10 mm Access Point on SVP No 6 R R  1.2.4 φ 40 mm 90° bend with 1E No 7 R R  1.3 General Rems  General sewage equipment  1.3.1 Concrete gulley complete with gulley trap, head and grate with reducer 200-0100mm no SVP was hand basin and urinals. No 7 R R  1.3.1 Concrete gulley complete with gulley trap, head and grate with reducer 200-0100mm no SVP was hand basin and urinals. No 7 R R  1.3.3 φ 32 mm 60° bend with 1E No 5 R R  1.3.4 φ 40 mm P Trap for laboratory sink. No 7 R R  1.3.5 φ 40 mm P Trap for laboratory sink. No 7 R R  1.	1					
1.1   SVP Piping   Complete with all necessary supports and fittings to complete the installation. Above ground drainage: All Bends to be a type fitted with an inspection eye, and inspection chambers to be of steel manufacture.						
Complete with all necessary supports and fittings to complete the installation. Above ground drainage: All Bends to be a type fitted with an inspection eye, and inspection chambers to be of steel manufacture.  1.1.1 110 mm φ piping to SANS 791 and SANS 967 m 76 R R R  1.1.2 110 mm φ piping to SANS 791 and SANS 967 m 3 R R  1.1.3 S0 mm φ piping to SANS 791 and SANS 967 m 4 Q R R  1.1.4 40 mm φ piping to SANS 791 and SANS 967 m 4 Q R R  1.1.5 32 mm φ piping to SANS 791 and SANS 967 m 4 Q R R  1.1.6 SVP Fittings  SVP Fittings  SVP Fittings.  1.2 SVP Fittings are to be fitted with deep seal traps.  1.2.1 φ 110 mm 90° bend N N N N N N N N N N N N N N N N N N N						
installation. Above ground drainage: All Bends to be a type fitted with an inspection eye, and inspection chambers to be of steel manufacture.  1.1.1 110 mm φ piping to SANS 791 and SANS 967 m 76 R R R R R R R R R R R R R R R R R R	1.1	. 0				
with an inspection eye, and inspection chambers to be of steel manufacture.  1.1.1 110 mm ф piping to SANS 791 and SANS 967 m 76 R R R  1.1.2 110 mm ф piping to SANS 791 and SANS 967 m 76 R R  1.1.3 50 mm ф piping to SANS 791 and SANS 967 m 3 R R  1.1.4 40 mm ф piping to SANS 791 and SANS 967 m 40 R R  1.1.5 32 mm ф piping to SANS 791 and SANS 967 m 40 R R  1.1.6 32 mm ф piping to SANS 791 and SANS 967 m 40 R R  1.1.7 SYP Fittings  SVP Fittings  SVP Fittings are to be fitted with deep seal traps.  1.2 4 \$110 mm 90° bend M N 11 R R R  1.2. 4 \$110 mm 90° bend with IE N N 5 R R  1.2. 4 \$110 mm 90° bend with vent horn. N 5 R R  1.2. 4 \$110 mm 135° bend. N 6 R R  1.2. 5 \$110 mm 135° bend. N 6 R R  1.2. 6 \$110 mm Y-junction 45° with inspection eye. N 15 R R  1.2. 6 \$110 mm Y-junction 45° with inspection eye. N 10 R R  1.2. 9 \$110 mm Access Point on SVP N 10 R R  1.2. 9 \$110 mm Access Point on SVP N 10 R R  1.2. 11 10 x 32 Eccentric Reducer N 11 R R R  1.2. 11 10 x 32 Eccentric Reducer N 12 R R  1.3. 4 040 mm aluminium pipe clip. brackets N 2 R R  1.3. 4 040 mm aluminium pipe clip. brackets N 2 R R  1.3. 5 40 mm 5 Trap for laboratory sink. N 0 2 R R  1.3. 6 32 mm 50° bend with IE N 1 R R  1.3. 6 40 mm PT Trap for laboratory sink. N 0 2 R R  1.3. 6 40 mm PT Trap for laboratory sink. N 0 2 R R  1.3. 6 40 mm PT Trap for laboratory sink. N 0 7 R R  1.3. 6 40 mm PT Trap for laboratory sink. N 0 7 R R  1.3. 6 410 mm PT Trap for laboratory sink. N 0 7 R R  1.3. 6 410 mm PT Trap for laboratory sink. N 0 7 R R  1.3. 6 410 mm PT Trap for laboratory sink. N 0 7 R R  1.3. 6 410 mm PT Trap for laboratory sink. N 0 7 R R  1.3. 6 410 mm PT Trap for laboratory sink. N 0 7 R R  1.3. 6 410 mm PT Trap for laboratory sink. N 0 7 R R  1.3. 6 410 mm PT Trap for laboratory sink. N 0 7 R R  1.3. 6 110 mm PT Trap for laboratory sink. N 0 7 R R  1.3. 6 110 mm PT Trap for laboratory sink. N 0 7 R R  1.3. 6 110 mm PT Trap for laboratory sink. N 0 7 R R						
manufacture.						
1.1.2   110 mm φ Up piping to SANS 791 and SANS 967   m   76   R   R						
1.1.3   50 mm φ piping to SANS 791 and SANS 967   m   40 mm φ piping to SANS 791 and SANS 967   m   40 mm φ piping to SANS 791 and SANS 967   m   40 mm φ piping to SANS 791 and SANS 967   m   15   R   R   R	1.1.1		m	8	R	R
1.1.4   40 mm φ piping to SANS 791 and SANS 967   m   40   R   R	1.1.2		m	76	R	R
1.2 SVP Fittings  SVP Fittings. Fittings are to be fitted with deep seal traps.  SVP Fittings. Fittings are to be fitted with deep seal traps.  SVP Fittings. Fittings are to be fitted with deep seal traps.  SVP Fittings. Fittings are to be fitted with deep seal traps.  SVP Fittings. Fittings are to be fitted with deep seal traps.  SVP Fittings. Fittings are to be fitted with deep seal traps.  SVP Fittings. Fittings are to be fitted with deep seal traps.  No 11 R R R  R  1.2.1.2.1.2.1.2.0 \$\phi 110 \text{ mm 90}^\text{ bend with 1E}}  No 2 R R  R  1.2.3.0 \$\phi 110 \text{ mm 90}^\text{ bend with vent horn.}  No 2 R R  R  1.2.4.4 \$\phi 110 \text{ mm 17-junction 45}^\text{ m. No}  SVP Fittings. Fittings are to be fitted with deep seal traps.  No 2 R R  R  1.2.5.0 \$\phi 110 \text{ mm 90}^\text{ bend with tent horn.}  No 6 R R  R  1.2.6.1.2.5 \$\phi 110 \text{ mm 17-junction 45}^\text{ m. No}  SVP Fittings. Fittings are to be fitted with deep seal traps.  No 15 R R  R  R  1.2.7 \$\phi 110 \text{ mm 90}^\text{ bend with 1E}}  No 2 R R  R  R  R  R  R  R  R  R  R  R  R  R	1.1.3	50 mm φ piping to SANS 791 and SANS 967	m	3	R	R
SVP Fittings	1.1.4		m	40	R	R
SVP Fittings. Fittings are to be fitted with deep seal traps.	1.1.5	32 mm φ piping to SANS 791 and SANS 967	m	15	R	R
1.2.1	1.2	SVP Fittings				
1.2.1		SVP Fittings. Fittings are to be fitted with deep seal trans				
1.2.2   \$ 110 mm 90° bend with IE						
1.2.3		· ·				
1.2.4   \$\phi 110 \text{ mm } 135^\circ \text{ bend.} \		· ·				
1.2.5		·				
1.2.6   \$\phi 110 \text{ mm Y-junction 45° with inspection eye.} \   No   2   R   R   R     1.2.7   \$\phi 110 \text{ mm aluminium pipe clips.} \   No   20   R   R     1.2.8   \$\phi 110 \text{ mm aluminium pipe clips.} \   No   6   R   R     1.2.9   \$\phi 110 \text{ mm Access Point on SVP} \   No   3   R   R     1.2.10   \$\phi 10 \text{ mm Access Point on SVP} \   No   3   R   R     1.2.11   \$\phi 10 \text{ mm Saddle connector to fit 32mm pipe} \   No   1   R   R     1.2.11   \$\phi 10 \text{ x3 Eccentric Reducer} \   No   1   R   R     1.2.12   \$\phi 40 \text{ mm 90° bend with IE} \   No   12   R   R     1.2.13   \$\phi 40 \text{ mm B7,5° Junction} \   No   3   R   R     1.2.14   \$\phi 40 \text{ mm aluminium pipe clip.brackets} \   No   20   R   R     1.2.15   \$\phi 40 \text{ mm went valve} \   No   2   R   R     1.2.16   \$\phi 32 \text{ mm 90° plain bend} \   No   3   R   R     1.2.15   \$\phi 32 \text{ mm 90° bend with IE} \   No   7   R   R     1.3.1   Concrete gulley complete with gulley trap, head and grate with reducer 20x100mm   No   7   R   R     1.3.2   Connection to 110mm min sewer line   No   1   R   R     1.3.3   \$\phi 32 \text{ mm Bottle Trap for wash hand basin and urinals.} \   No   7   R   R     1.3.4   \$\phi 32 \text{ mm End Female Cap} \   No   2   R   R     1.3.5   \$\phi 40 \text{ mm Prap for laboratory sink.} \   No   7   R   R     1.3.6   \$\phi 40 \text{ mm Prap for laboratory sink.} \   No   5   R   R     1.3.7   \$\phi 10 \text{ mm Pan connector to toilet} \   No   5   R   R     1.3.7   \$\phi 10 \text{ mm Pan connector to toilet} \   No   5   R   R     1.3.7   \$\phi 10 \text{ mm Pan connector to toilet} \   No   5   R   R     1.3.8   \$\phi 10 \text{ mm Pan connector to toilet} \   No   5   R   R     1.3.9   \$\phi 10 \text{ mm Pan connector to toilet} \   No   5   R   R     1.3.1   \$\phi 10 \text{ mm Pan connector to toilet} \   No   5   R   R     1.3.1   \$\phi 10 \text{ mm Pan connector to toilet} \   No   5   R   R     1.3.1   \$\phi 10 \text{ mm Pan connector to toilet} \   No   5   R   R		·				
1.2.7						
1.2.8						
1.2.9				+		
2.10   \$\phi 110 \text{ mm saddle connector to fit 32mm pipe}	1.2.9			3	R	R
2.12	.2.10		No	1	R	R
2.13	.2.11	110 x 32 Eccentric Reducer	No	1	R	R
2.14 \$\phi 40 \text{ nm aluminium pipe clip.brackets}\$  No 20 R R R  2.15 \$\phi 40 \text{ nm vent valve}\$  No 2 R R  R  2.14 \$\phi 32 \text{ nm 90° plain bend}\$  No 3 R R  R  2.15 \$\phi 32 \text{ mm 90° bend with IE}\$  No 7 R R  R  1.3 General items  General sewage equipment  1.3.1 Concrete gulley complete with gulley trap, head and grate with reducer 200x100mm  No 7 R R  R  1.3.2 Connection to 110mm min sewer line  1.3.3 \$\phi 32 \text{ nm Bottle Trap for wash hand basin and urinals.}\$  No 7 R R  R  1.3.4 \$\phi 32 \text{ nm End Female Cap}\$  No 2 R R  R  1.3.5 \$\phi 40 \text{ nm S Trap for laboratory sink.}\$  No 4 R  R  1.3.7 \$\phi 110 \text{ nm P Trap for laboratory sink.}\$  No 5 R  R	.2.12	φ 40 mm 90° bend with IE	No	12	R	R
2.15	.2.13	φ 40 mm 87,5° Junction	No	3	R	R
2.14   φ 32 mm 90° plain bend   No   3   R   R		φ 40 mm aluminium pipe clip.brackets	No			R
1.3.1 Concrete gulley complete with gulley trap, head and grate with reducer 200x100mm No 7 R R R  1.3.2 Connection to 110mm min sewer line No 1 R R  1.3.3 \$\int 32\$ mm Bottle Trap for wash hand basin and urinals. No 7 R R  1.3.4 \$\int 32\$ mm End Female Cap No 2 R R  1.3.5 \$\int 40\$ mm S Trap for laboratory sink. No 7 R R  1.3.6 \$\int 40\$ mm P Trap for laboratory sink. No 5 R R  1.3.7 \$\int 110\$ mm Pan connector to toilet No 5 R R	.2.15	φ 40 mm vent valve	No	2	R	R
1.3.1 Concrete gulley complete with gulley trap, head and grate with reducer 200x100mm No 7 R R R  1.3.2 Connection to 110mm min sewer line No 1 R R  1.3.3 \$\int 32\$ mm Bottle Trap for wash hand basin and urinals. No 7 R R  1.3.4 \$\int 32\$ mm End Female Cap No 2 R R  1.3.5 \$\int 40\$ mm S Trap for laboratory sink. No 7 R R  1.3.6 \$\int 40\$ mm P Trap for laboratory sink. No 5 R R  1.3.7 \$\int 110\$ mm Pan connector to toilet No 5 R R	.2.14	φ 32 mm 90° plain bend	No	3	R	R
General sewage equipment  1.3.1 Concrete gulley complete with gulley trap, head and grate with reducer 200x100mm  No 7 R R  1.3.2 Connection to 110mm min sewer line  1.3.3 \$\phi\$ 32 mm Bottle Trap for wash hand basin and urinals.  No 7 R R  R  1.3.4 \$\phi\$ 32 mm End Female Cap  No 2 R R  1.3.5 \$\phi\$ 40 mm S Trap for laboratory sink.  No 7 R R  R  1.3.6 \$\phi\$ 40 mm P Trap for laboratory sink.  No 5 R  R  1.3.7 \$\phi\$ 110 mm Pan connector to toilet				-	1	+
General sewage equipment  1.3.1 Concrete gulley complete with gulley trap, head and grate with reducer 200x100mm  No 7 R R  1.3.2 Connection to 110mm min sewer line  1.3.3 \$\phi\$ 32 mm Bottle Trap for wash hand basin and urinals.  No 7 R R  R  1.3.4 \$\phi\$ 32 mm End Female Cap  No 2 R R  1.3.5 \$\phi\$ 40 mm S Trap for laboratory sink.  No 7 R R  R  1.3.6 \$\phi\$ 40 mm P Trap for laboratory sink.  No 5 R  R  1.3.7 \$\phi\$ 110 mm Pan connector to toilet						
1.3.1 Concrete gulley complete with gulley trap, head and grate with reducer 200x100mm No 7 R R  1.3.2 Connection to 110mm min sewer line No 1 R R  1.3.3 \$\int 32 \text{ mm Bottle Trap for wash hand basin and urinals.} No 7 R R  1.3.4 \$\int 32 \text{ mm End Female Cap} No 2 R R  1.3.5 \$\int 40 \text{ mm S Trap for laboratory sink.} No 7 R R  1.3.6 \$\int 40 \text{ mm P Trap for laboratory sink.} No 4 R R  1.3.7 \$\int 110 \text{ mm Pan connector to toilet} No 5 R R	1.3	General items				
reducer 200x100mm         No         7         R         R           1.3.2         Connection to 110mm min sewer line         No         1         R         R           1.3.3         φ 32 mm Bottle Trap for wash hand basin and urinals.         No         7         R         R           1.3.4         φ 32 mm End Female Cap         No         2         R         R           1.3.5         φ 40 mm S Trap for laboratory sink.         No         7         R         R           1.3.6         φ 40 mm P Trap for laboratory sink.         No         4         R         R           1.3.7         φ 110 mm Pan connector to toilet         No         5         R         R		General sewage equipment				
reducer 200x100mm         No         7         R         R           1.3.2         Connection to 110mm min sewer line         No         1         R         R           1.3.3         φ 32 mm Bottle Trap for wash hand basin and urinals.         No         7         R         R           1.3.4         φ 32 mm End Female Cap         No         2         R         R           1.3.5         φ 40 mm S Trap for laboratory sink.         No         7         R         R           1.3.6         φ 40 mm P Trap for laboratory sink.         No         4         R         R           1.3.7         φ 110 mm Pan connector to toilet         No         5         R         R	1.3.1	Concrete gulley complete with gulley trap, head and grate with				
1.3.2       Connection to 110mm min sewer line       No       1       R       R         1.3.3       φ 32 mm Bottle Trap for wash hand basin and urinals.       No       7       R       R         1.3.4       φ 32 mm End Female Cap       No       2       R       R         1.3.5       φ 40 mm S Trap for laboratory sink.       No       7       R       R         1.3.6       φ 40 mm P Trap for laboratory sink.       No       4       R       R         1.3.7       φ 110 mm Pan connector to toilet       No       5       R       R			No	7	R	R
1.3.4       φ 32 mm End Female Cap       No       2       R       R         1.3.5       φ 40 mm S Trap for laboratory sink.       No       7       R       R         1.3.6       φ 40 mm P Trap for laboratory sink.       No       4       R       R         1.3.7       φ 110 mm Pan connector to toilet       No       5       R       R	1.3.2			+		
1.3.5       φ 40 mm S Trap for laboratory sink.       No       7       R       R         1.3.6       φ 40 mm P Trap for laboratory sink.       No       4       R       R         1.3.7       φ 110 mm Pan connector to toilet       No       5       R       R	1.3.3		No	7	R	R
1.3.6 φ 40 mm P Trap for laboratory sink. No 4 R R 1.3.7 φ 110 mm Pan connector to toilet No 5 R R		·	No			+
1.3.7 \$\phi\$ 110 mm Pan connector to toilet No 5 R R					1	_
1.4 Sundries Sum R  R  R  R	1.3./	φ 110 mm Pan connector to toilet	No	5	K	K
	1.4	Sundries	Sum	-	-	R

## SEWER SERVICES - HOSTELS - 1A TYPE BOYS BLOCK 10

EM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
1	SEWER BILL OF QUANTITY				
	Supply, erection & commisioning of complete drainage system acc to				
	SANS 10252-2				
1.1	SVP Piping				
	Complete with all necessary supports and fittings to complete the				
	installation. Above ground drainage: All Bends to be a type fitted with				
	an inspection eye, and inspection chambers to be of steel manufacture.				
1.1.1	110 mm $\phi$ piping to SANS 791 and SANS 967	m	10	R	R
1.1.2	110 mm $\phi$ UG piping to SANS 791 and SANS 967	m	110	R	R
1.1.3	40 mm φ piping to SANS 791 and SANS 967	m	22	R	R
L.1.4	32 mm φ piping to SANS 791 and SANS 967	m	30	R	R
1.2	SVP Fittings				
	SVP Fittings. Fittings are to be fitted with deep seal traps.				
l.2.1	ф 110 mm 90° bend	No	24	R	R
L.2.2	φ 110 mm 90° bend with IE	No	12	R	R
.2.3	φ 110 mm Stub Stack with 2 way vent valve	No	6	R	R
.2.4	φ 110 mm 135° bend.	No	22	R	R
L.2.5	φ 110 mm Y-junction 45°	No	22	R	R
L.2.6	φ 110 mm Y-junction 45° with inspection eye.	No	2	R	R
L.2.7	φ 110 mm aluminium pipe clips.	No	20	R	R
L.2.8	φ 110 mm Access Point on SVP	No	2	R	R
2.9	φ 110 mm 45° Rodding eye	No	3	R	R
.2.10	φ 110 mm saddle connector to fit 32mm pipe	No	1	R	R
.2.11	φ 110 Reducing junction with double access heel 87,5° 100 x 40	No	2	R	R
.2.12	φ 110 Access double junction 100 x 40 90°	No	2	R	R
.2.13	φ 40 mm 90° bend	No	10	R	R
.2.14	φ 40 mm 90° plain bend with IE	No	10	R	R
.2.15	φ 40 mm plain juction 87,5°	No	2	R	R
.2.16	φ 40 mm brackets	No	6	R	R
.2.17	φ 40 x 32 reducer	No	2	R	R
.2.18	φ 40 mm brackets	No	12	R	R
.2.19	φ 40 admittance air valve/vent valve	No	2	R	R
.2.20	φ 32 mm 90° bend	No	8	R	R
.2.21	φ 32 mm 90° bend with IE	No	4	R	R
.2.22	φ 32 mm plain juction 87,5°	No	6	R	R
.2.23	φ 32 mm brackets	No	18	R	R
1.3	General items				
	General sewage equipment				
L.3.1					
1.3.2	Concrete gulley complete with gulley trap, head and grate with reducer				
	200x100mm	No	6	R	R
L.3.3	Connection to 110mm min sewer line	No	2	R	R
3.4	φ 32 mm Bottle Trap for wash hand basins and urinals.	No	14	R	R
3.5	φ 32 mm End Female Cap	No	6	R	R
3.6	φ 40 mm Shower Trap	No	6	R	R
1.3.7	φ 40 mm S Trap for kitchen sink.	No	2	R	R
3.8	φ 110 mm Pan connector to toilet	No	10	R	R
					<del> </del> -
1.4	Sundries	Sum	-	-	R
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			1	i .	1

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EM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
1	SEWER BILL OF QUANTITY				
_	Supply, erection & commisioning of complete drainage system acc to				
	SANS 10252-2				
1.1	SVP Piping				
	Complete with all necessary supports and fittings to complete the				
	installation. Above ground drainage: All Bends to be a type fitted with				
	an inspection eye, and inspection chambers to be of steel manufacture.				
1.1	440		10	_	-
l.1.1 l.1.2	110 mm $\phi$ piping to SANS 791 and SANS 967	m	10	R R	R
L.1.2 L.1.3	110 mm φ UG piping to SANS 791 and SANS 967 40 mm φ piping to SANS 791 and SANS 967	m m	110 22	R	R
L.1.4	32 mm φ piping to SANS 791 and SANS 967	m m		R	R
1.1.4	32 mm φ piping to 3AN3 791 and 3AN3 907	111	30	ĸ	K
1.2	SVP Fittings				
	SVP Fittings. Fittings are to be fitted with deep seal traps.				
L.2.1 L.2.2	φ 110 mm 90° bend φ 110 mm 90° bend with IE	No	24	R R	R R
		No	12	R	R
.2.3	φ 110 mm Stub Stack with 2 way vent valve φ 110 mm 135° bend.	No No	6 22	R	R
L.2.4 L.2.5	φ 110 mm Y-junction 45°	No	22	R	R
1.2.6	φ 110 mm Y-junction 45° with inspection eye.	No	2	R	R
L.2.7	φ 110 mm aluminium pipe clips.	No	20	R	R
.2.8	φ 110 mm Access Point on SVP	No	2	R	R
.2.9	φ 110 mm 45° Rodding eye	No	3	R	R
.2.10	φ 110 mm saddle connector to fit 32mm pipe	No	1	R	R
.2.11	φ 110 Reducing junction with double access heel 87,5° 100 x 40	No	2	R	R
.2.12	φ 110 Access double junction 100 x 40 90°	No	2	R	R
.2.13	φ 40 mm 90° bend	No	10	R	R
.2.14	φ 40 mm 90° plain bend with IE	No	10	R	R
.2.15	φ 40 mm plain juction 87,5°	No	2	R	R
.2.16	φ 40 mm brackets	No	6	R	R
.2.17	φ 40 x 32 reducer	No	2	R	R
.2.18	φ 40 mm brackets	No	12	R	R
.2.19	φ 40 admittance air valve/vent valve	No	2	R	R
.2.20	ф 32 mm 90° bend	No	8	R	R
.2.21	φ 32 mm 90° bend with IE	No	4	R	R
.2.22	φ 32 mm plain juction 87,5°	No	6	R	R
.2.23	φ 32 mm brackets	No	18	R	R
1.3	General items				
	General sewage equipment				
L.3.1	Consider with a state of the st				
L.3.2	Concrete gulley complete with gulley trap, head and grate with reducer 200x100mm	No	6	R	R
1.3.3	Connection to 110mm min sewer line	No	6 2	R	R
.3.4	φ 32 mm Bottle Trap for wash hand basins and urinals.	No	14	R	R
.3.5	φ 32 mm End Female Cap	No	6	R	R
.3.6	φ 40 mm Shower Trap	No	6	R	R
.3.7	φ 40 mm S Trap for kitchen sink.	No	2	R	R
3.8	φ 110 mm Pan connector to toilet	No	10	R	R
1.4	Sundries	Sum	-	-	R
		1		1	

EM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
1	SEWER BILL OF QUANTITY				
	Supply, erection & commisioning of complete drainage system acc to				
	SANS 10252-2				
1.1	SVP Piping				
	Complete with all necessary supports and fittings to complete the				
	installation. Above ground drainage: All Bends to be a type fitted with				
	an inspection eye, and inspection chambers to be of steel manufacture.				
.1.1	110 mm $\phi$ piping to SANS 791 and SANS 967	m	10	R	R
.1.2	110 mm $\phi$ UG piping to SANS 791 and SANS 967	m	110	R	R
.1.3	40 mm φ piping to SANS 791 and SANS 967	m	22	R	R
.1.4	32 mm φ piping to SANS 791 and SANS 967	m	30	R	R
1.2	CVD Fittings				
1.2	SVP Fittings SVP Fittings. Fittings are to be fitted with deep seal traps.				
	Tritings. Fittings are to be fitted with deep sear traps.				
.2.1	ф 110 mm 90° bend	No	24	R	R
.2.2	φ 110 mm 90° bend with IE	No	12	R	R
.2.3	φ 110 mm Stub Stack with 2 way vent valve	No	6	R	R
.2.4	φ 110 mm 135° bend.	No	22	R	R
2.5	φ 110 mm Y-junction 45°	No	22	R	R
2.6	φ 110 mm Y-junction 45° with inspection eye.	No	2	R	R
2.7	φ 110 mm aluminium pipe clips.	No	20	R	R
2.8	φ 110 mm Access Point on SVP	No	2	R	R
2.9	φ 110 mm 45° Rodding eye	No	3	R	R
2.10	φ 110 mm saddle connector to fit 32mm pipe	No	1	R	R
.2.11	φ 110 Reducing junction with double access heel 87,5° 100 x 40	No	2	R	R
.2.12	φ 110 Access double junction 100 x 40 90°	No	2	R	R
				_	
.2.13	φ 40 mm 90° bend	No	10	R	R
.2.14	φ 40 mm 90° plain bend with IE	No	10	R R	R
.2.15	φ 40 mm plain juction 87,5° φ 40 mm brackets	No	6	R	R
.2.17	φ 40 x 32 reducer	No No	2	R	R
.2.18	φ 40 mm brackets	No	12	R	R
.2.19	φ 40 admittance air valve/vent valve	No	2	R	R
	To damittance an varyer varye	110			<del> </del> "
2.20	ф 32 mm 90° bend	No	8	R	R
2.21	φ 32 mm 90° bend with IE	No	4	R	R
2.22	φ 32 mm plain juction 87,5°	No	6	R	R
.2.23	φ 32 mm brackets	No	18	R	R
1.3	General items				
2.4	General sewage equipment				
3.1	Consusts will be assemble with will be those board and make with node on				
3.2	Concrete gulley complete with gulley trap, head and grate with reducer 200x100mm	No	6	R	R
.3.3	Connection to 110mm min sewer line	No	2	R	R
.3.4	φ 32 mm Bottle Trap for wash hand basins and urinals.	No	14	R	R
3.5	φ 32 mm End Female Cap	No	6	R	R
.3.6	φ 40 mm Shower Trap	No	6	R	R
.3.7	φ 40 mm S Trap for kitchen sink.	No	2	R	R
.3.8	φ 110 mm Pan connector to toilet	No	10	R	R
1.4	Sundries	Sum	-	-	R

Block 12 Page 11

	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
1	SEWER BILL OF QUANTITY	ONIT	QUANTITI	MAIL	AMOUNT
	Supply, erection & commissioning of complete drainage system acc to				
	SANS 10252-2				
1.1	SVP Piping				
	Complete with all necessary supports and fittings to complete the				
	installation. Above ground drainage: All Bends to be a type fitted with				
	an inspection eye, and inspection chambers to be of steel manufacture.				
1.1.1	110 mm φ UG piping to SANS 791 and SANS 967	m	45	R	R
			_		
	SVP Fittings				
	SVP Fittings. Fittings are to be fitted with deep seal traps.				
1.2.1	φ 110 mm 90° bend	No	1	R	R
	φ 110 mm 90° bend with IE	No	1	R	R
	φ 110 mm 135° bend.	No	1	R	R
	φ 110 mm Y-junction 45°	No	1	R	R
1.2.3 q 1.2.4 q 1.2.5 q 1.3 ( 1.3.1 q 1.3.2 q 1.3.3 ( 1.3.3 q 1.3.3 q	φ 110 mm 45° Rodding eye	No	1	R	R
1.3					
	General items				
	General sewage equipment				
	Concrete gulley complete with gulley trap, head and grate with reducer				
1.3.2	200x100mm	No	1	R	R
1.3.3	Connection to 110mm min sewer line	No	1	R	R
1.4	Sundries	Sum	-	-	R
		l	I		

TEM NO	DESCRIPTION				
	DESCRIPTION	LINUT	OLIANITITY	DATE	404011017
		UNIT	QUANTITY	RATE	AMOUNT
	SEWER BILL OF QUANTITY				_
	Supply, erection & commissioning of complete drainage system acc to SANS 10252-2				
1.1	SVP Piping				
1.1	Complete with all necessary supports and fittings to complete the				+
	installation. Above ground drainage: All Bends to be a type fitted				
	with an inspection eye, and inspection chambers to be of steel				
	manufacture.				
1.1.1	110 mm $\phi$ piping to SANS 791 and SANS 967	m	1	R	R
1.1.2	110 mm $\phi$ UG piping to SANS 791 and SANS 967	m	17	R	R
1.1.3	40 mm φ piping to SANS 791 and SANS 967	m	3	R	R
1.1.4	32 mm φ piping to SANS 791 and SANS 967	m	2	R	R
	52 mm φ pipmg to 3/4/3 /31 and 3/4/3 30/			"\	<del>  "</del>
1.2	SVP Fittings				_
1.2	3VF Fittings				+
	SVP Fittings. Fittings are to be fitted with deep seal traps.				+
	5 VI Tittings Tittings are to be litted with deep sear traps.				
1.2.1	ф 110 mm 90° bend	No	3	R	R
1.2.2	φ 110 mm 90° bend with IE	No	1	R	R
1.2.3	φ 110 mm 90° bend with vent horn.	No	1	R	R
1.2.4	φ 110 mm Y-junction 45°	No	4	R	R
1.2.5	φ 110 mm aluminium pipe clips.	No	5	R	R
1.2.6	φ 110 mm Access Point on SVP	No	1	R	R
1.2.7	φ 110 mm 45° Rodding eye	No	1	R	R
	,				
1.2.8	φ 40 mm 90° bend with IE	No	2	R	R
1.2.9	φ 40 mm 87,5° Junction	No	1	R	R
1.2.10	φ 40 mm aluminium pipe clip.brackets	No	2	R	R
1.2.11	φ 40 mm vent valve	No	1	R	R
L.2.12	φ 32 mm 90° plain bend	No	1	R	R
L.2.13	φ 32 mm 90° bend with IE	No	1	R	R
1.3	General items				
	General sewage equipment				
1.3.1	Concrete gulley complete with gulley trap, head and grate with				
	reducer 200x100mm	No	2	R	R
1.3.2	Connection to 110mm min sewer line	No	1	R	R
1.3.3	φ 32 mm Bottle Trap for wash hand basin.	No	1	R	R
1.3.4	φ 32 mm End Female Cap	No	1	R	R
1.3.5	φ 40 mm P Trap for sink.	No	1	R	R
1.3.6	φ 110 mm Pan connector to toilet	No	1	R	R
					<del></del>
1.4	Sundries	Sum	-	-	R
					+
					+
				<u> </u>	+
				1	+

TOTAL BLOCK 14 CARRIED FORWARD TO SUMMARY

	•				
M NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUN
1	SEWER BILL OF QUANTITY				
	Supply, erection & commissioning of complete drainage system				
	acc to SANS 10252-2				
1.1	SVP Piping				
	Complete with all necessary supports and fittings to complete the				
	installation. Above ground drainage: All Bends to be a type fitted with an inspection eye, and inspection chambers to be of steel				
	manufacture.				
1.1.1	110 mm $\phi$ piping to SANS 791 and SANS 967	m	3	R	R
1.1.2	110 mm φ UG piping to SANS 791 and SANS 967	m	12	R	R
1.1.3	40 mm φ piping to SANS 791 and SANS 967	m	2	R	R
1.1.4	32 mm φ piping to SANS 791 and SANS 967	m	10	R	R
1.2	SVP Fittings				
	SVP Fittings. Fittings are to be fitted with deep seal traps.				
1.2.1	ф 110 mm 90° bend	No	6	R	R
1.2.2	φ 110 mm 90° bend with IE	No	3	R	R
1.2.3	φ 110 mm 90° bend with vent horn.	No	1	R	R
1.2.4	φ 110 mm Y-junction 45°	No	6	R	R
1.2.5	ф 110 mm double junction 90° with inspection eye.	No	1	R	R
1.2.6	φ 110 mm Access Point on SVP	No	1	R	R
1.2.7	φ 110 mm 45° Rodding eye	No	1	R	R
1.2.8 1.2.9	φ 110 mm saddle connector to fit 32mm pipe  φ 110 x 32 Eccentric Reducer	No No	3	R R	R R
2.10	φ 110 x 32 Eccentric Reducer  φ 110 mm Stub Stack with 2 way vent valve	No	1	R	R
	TIO HIM Stab Stack With 2 way vent valve	140	-		
2.20	φ 40 mm 90° plain bend	No	1	R	R
.2.21	φ 40 mm 90° bend with IE	No	1	R	R
.2.25	φ 40 mm vent valve	No	1	R	R
.2.26	φ 32 mm 90° plain bend	No	3	R	R
2.27	φ 32 mm 90° bend with IE	No	3	R	R
1.3	General items				
	General sewage equipment				
1.3.1	Concrete gulley complete with gulley trap, head and grate with				
	reducer 200x100mm	No	3	R	R
1.3.2	Connection to 110mm min sewer line	No	1	R	R
1.3.3	φ 32 mm Bottle Trap for wash hand basins and rinals.	No	3	R	R
1.3.4	φ 32 mm End Female Cap	No	3	R	R
1.3.5	φ 40 mm bath traps	No	1	R	R
1.3.6	φ 110 mm Pan connector to toilet	No	3	R	R
1.4	Sundries	Sum	-	-	R
				1	1
	CK 15 CARRIED FORWARD TO SUMMARY			1	

M NO	DESCRIPTION	LIMIT	QUANTITY	DATE	ANACHIN
1	SEWER BILL OF QUANTITY	UNIT	QUANTITY	RATE	AMOUN
	Supply, erection & commissioning of complete drainage system				
	acc to SANS 10252-2				
1.1	SVP Piping				
	Complete with all necessary supports and fittings to complete the				
	installation. Above ground drainage: All Bends to be a type fitted				
	with an inspection eye, and inspection chambers to be of steel				
	manufacture.				
l.1.1	110 mm φ piping to SANS 791 and SANS 967	m	2	R	R
1.1.2	110 mm $\phi$ UG piping to SANS 791 and SANS 967	m	60	R	R
l.1.3	40 mm $\phi$ piping to SANS 791 and SANS 967	m	16	R	R
L.1.4	32 mm φ piping to SANS 791 and SANS 967	m	6	R	R
1.2	SVP Fittings				
	SVP Fittings. Fittings are to be fitted with deep seal traps.				
1.2.1	ф 110 mm 90° bend	No	6	R	R
1.2.2	φ 110 mm 90° bend with IE	No	2	R	R
1.2.3	φ 110 mm 90° bend with vent horn.	No	2	R	R
L.2.4	φ 110 mm 135° bend.	No	6	R	R
1.2.5	φ 110 mm Y-junction 45°	No	7	R	R
1.2.6	φ 110 mm Y-junction 45° with inspection eye.	No	1	R	R
1.2.7	φ 110 mm 45° Rodding eye	No	1	R	R
1.2.8	110 x 40 Eccentric Reducer	No	2	R	R
1.2.9	φ 40 mm 90° bend with IE	No	6	R	R
.2.10	φ 40 mm 87,5° Junction	No	2	R	R
.2.11	φ 40 mm aluminium pipe clip.brackets	No	5	R	R
.2.12	φ 40 mm vent valve	No	2	R	R
.2.14	φ 32 mm 90° plain bend	No	4	R	R
.2.15	φ 32 mm 90° bend with IE	No	4	R	R
4.0	2 10				
1.3	General items				
	General sewage equipment				
L.3.1	Concrete gulley complete with gulley trap, head and grate with			_	_
	reducer 200x100mm	No	4	R	R
1.3.2	Connection to 110mm min sewer line	No	1	R	R
1.3.3	φ 32 mm Bottle Trap for wash hand basin and urinals.	No	4	R	R
L.3.4	φ 32 mm End Female Cap	No	4	R	R
1.3.5	φ 40 mm S Trap for wash toughs.	No	2	R	R
1.3.6 1.3.7	φ 40 mm bath traps φ 110 mm Pan connector to toilet	No No	2 2	R R	R R
1.3.8	φ 40 mm Shower Trap	No	2	R	R
1.5.0	y to ministrower map	110			<u> </u>
1.4	Sundries	Sum	-	-	R

	DESCRIPTION	LINUT	QUANTITY	DATE	ANAOUN
1 NO	SEWER BILL OF QUANTITY	UNIT	QUANTITY	RATE	AMOUN
	Supply, erection & commissioning of complete drainage system				
	acc to SANS 10252-2				
1.1	SVP Piping				
	Complete with all necessary supports and fittings to complete the				
	installation. Above ground drainage: All Bends to be a type fitted				
	with an inspection eye, and inspection chambers to be of steel				
	manufacture.				
1.1.1	110 mm φ piping to SANS 791 and SANS 967	m	2	R	R
1.1.2	110 mm $\phi$ UG piping to SANS 791 and SANS 967	m	60	R	R
L.1.3	40 mm $\phi$ piping to SANS 791 and SANS 967	m	16	R	R
1.1.4	32 mm φ piping to SANS 791 and SANS 967	m	6	R	R
1.2	SVP Fittings				
	SVP Fittings. Fittings are to be fitted with deep seal traps.				
1.2.1	ф 110 mm 90° bend	No	6	R	R
1.2.2	φ 110 mm 90° bend with IE	No	2	R	R
1.2.3	φ 110 mm 90° bend with vent horn.	No	2	R	R
1.2.4	φ 110 mm 135° bend.	No	6	R	R
1.2.5	φ 110 mm Y-junction 45°	No	7	R	R
1.2.6	φ 110 mm Y-junction 45° with inspection eye.	No	1	R	R
1.2.7	φ 110 mm 45° Rodding eye	No	1	R	R
1.2.8	110 x 40 Eccentric Reducer	No	2	R	R
1.2.9	φ 40 mm 90° bend with IE	No	6	R	R
.2.10	φ 40 mm 87,5° Junction	No	2	R	R
.2.11	φ 40 mm aluminium pipe clip.brackets	No	5	R	R
.2.12	φ 40 mm vent valve	No	2	R	R
.2.14	φ 32 mm 90° plain bend	No	4	R	R
.2.15	φ 32 mm 90° bend with IE	No	4	R	R
1.3	General items				
	General sewage equipment				
1.3.1	Concrete gulley complete with gulley trap, head and grate with				
0	reducer 200x100mm	No	4	R	R
1.3.2	Connection to 110mm min sewer line	No	1	R	R
1.3.3	φ 32 mm Bottle Trap for wash hand basin and urinals.	No	4	R	R
L.3.4	φ 32 mm End Female Cap	No	4	R	R
1.3.5	φ 40 mm S Trap for wash toughs.	No	2	R	R
1.3.6	φ 40 mm bath traps	No	2	R	R
1.3.7	φ 110 mm Pan connector to toilet	No	2	R	R
1.3.8	φ 40 mm Shower Trap	No	2	R	R
1.4	Sundries	Sum	-	-	R
					+
				1	

M NO	DESCRIPTION	LINUT	OLIANITITY	DATE	4440111
1	SEWER BILL OF QUANTITY	UNIT	QUANTITY	RATE	AMOU
	Supply, erection & commissioning of complete drainage system				
	acc to SANS 10252-2				
1.1	SVP Piping				
	Complete with all necessary supports and fittings to complete the				
	installation. Above ground drainage: All Bends to be a type fitted				
	with an inspection eye, and inspection chambers to be of steel				
	manufacture.				
.1.1	110 mm φ piping to SANS 791 and SANS 967	m	2	R	R
1.1.2	110 mm $\phi$ UG piping to SANS 791 and SANS 967	m	60	R	R
.1.3	40 mm φ piping to SANS 791 and SANS 967  32 mm φ piping to SANS 791 and SANS 967	m m	16	R	R R
1.4	32 IIIII $\psi$ piping to 3AN3 791 and 3AN3 907		6	K	n n
1.2	SVP Fittings				
	SVP Fittings. Fittings are to be fitted with deep seal traps.				
.2.1	ф 110 mm 90° bend	No	6	R	R
.2.2	φ 110 mm 90° bend with IE	No	2	R	R
.2.3	φ 110 mm 90° bend with vent horn.	No	2	R	R
2.4	ф 110 mm 135° bend.	No	6	R	R
2.5	φ 110 mm Y-junction 45°	No	7	R	R
2.6	φ 110 mm Y-junction 45° with inspection eye.	No	1	R	R
L.2.7	φ 110 mm 45° Rodding eye	No	1	R	R
1.2.8	110 x 40 Eccentric Reducer	No	2	R	R
1.2.9	φ 40 mm 90° bend with IE	No	6	R	R
.2.10	φ 40 mm 87,5° Junction	No	2	R	R
.2.11	φ 40 mm aluminium pipe clip.brackets	No	5	R	R
.2.12	φ 40 mm vent valve	No	2	R	R
2 1 /	ф 32 mm 90° plain bend	No	4	R	R
.2.14	φ 32 mm 90° bend with IE	No	4	R	R
.2.13	ψ 32 mm 30 bend with it.	NO	+ -	N.	, N
1.3	General items				
	General sewage equipment				
L.3.1	Concrete gulley complete with gulley trap, head and grate with			R	R
	reducer 200x100mm	No	4	ļ	
1.3.2	Connection to 110mm min sewer line	No	1	R	R
.3.3	φ 32 mm Bottle Trap for wash hand basin and urinals.  φ 32 mm End Female Cap	No No	4	R	R R
.3.5	φ 40 mm S Trap for wash toughs.	No	2	R	R
.3.6	φ 40 mm bath traps	No	2	R	R
.3.7	φ 110 mm Pan connector to toilet	No	2	R	R
.3.8	φ 40 mm Shower Trap	No	2	R	R
1.4	Sundries	Sum	-	-	R
			+		+
					+
				1	

	250005700		011451777		
M NO 1	DESCRIPTION  SENATED BILL OF QUANTITY	UNIT	QUANTITY	RATE	AMOU
	SEWER BILL OF QUANTITY  Supply, erection & commissioning of complete drainage system				
	acc to SANS 10252-2				
1.1	SVP Piping				
	Complete with all necessary supports and fittings to complete the				
	installation. Above ground drainage: All Bends to be a type fitted				
	with an inspection eye, and inspection chambers to be of steel				
	manufacture.				
11	110 mm φ piping to SANS 791 and SANS 967	m	2	R	R
.1.2	110 mm $\phi$ UG piping to SANS 791 and SANS 967	m	60	R	R
1.1.3	40 mm φ piping to SANS 791 and SANS 967	m	16	R	R
.1.4	32 mm φ piping to SANS 791 and SANS 967	m	6	R	R
1.2	SVP Fittings				
	SVP Fittings. Fittings are to be fitted with deep seal traps.				
.2.1	ф 110 mm 90° bend	No	6	R	R
.2.2	φ 110 mm 90° bend with IE	No	2	R	R
.2.3	φ 110 mm 90° bend with vent horn.	No	2	R	R
.2.4	φ 110 mm 135° bend.	No	6	R	R
2.5	φ 110 mm Y-junction 45°	No	7	R	R
2.6	φ 110 mm Y-junction 45° with inspection eye.	No	1	R	R
2.7	φ 110 mm 45° Rodding eye	No	1	R	R
2.8	110 x 40 Eccentric Reducer	No	2	R	R
.2.9	φ 40 mm 90° bend with IE	No	6	R	R
.2.10	φ 40 mm 87,5° Junction	No	2	R	R
.2.11	φ 40 mm aluminium pipe clip.brackets	No	5	R	R
.2.12	φ 40 mm vent valve	No	2	R	R
			_		
.2.14	φ 32 mm 90° plain bend	No	4	R	R
.2.15	φ 32 mm 90° bend with IE	No	4	R	R
1.3	General items				
1.5	General sewage equipment				
	ocherar servage equipment				
.3.1	Concrete gulley complete with gulley trap, head and grate with				R
	reducer 200x100mm	No	4	R	K
3.2	Connection to 110mm min sewer line	No	1	R	R
3.3	φ 32 mm Bottle Trap for wash hand basin and urinals.	No	4	R	R
.3.4	φ 32 mm End Female Cap	No	4	R	R
1.3.5	φ 40 mm S Trap for wash toughs.	No	2	R	R R
1.3.6	φ 40 mm bath traps φ 110 mm Pan connector to toilet	No No	2	R	R
.3.8	φ 40 mm Shower Trap	No	2	R	R
	y to mini shower map	110			<del> </del> "
1.4	Sundries	Sum	-		R
					1
				ĺ	ĺ

1.1.2			
Supply, erection & commisioning of complete drainage system acc to SANS 10252-2  1.1 SVP Piping  Complete with all necessary supports and fittings to complete the installation. Above ground drainage: All Bends to be a type fitted with an inspection eye, and inspection chambers to be of steel manufacture.  1.1.1 110 mm ф piping to SANS 791 and SANS 967 m.  1.1.2 110 mm ф UG piping to SANS 791 and SANS 967 m.  1.1.3 32 mm ф piping to SANS 791 and SANS 967 m.  1.2 SVP Fittings  SVP Fittings. Fittings are to be fitted with deep seal traps.  1.2.1	IT QUANTITY	RATE	AMOUN
acc to SANS 10252-2  1.1 SVP Piping  Complete with all necessary supports and fittings to complete the installation. Above ground drainage: All Bends to be a type fitted with an inspection eye, and inspection chambers to be of steel manufacture.  1.1.1 110 mm \$\phi\$ piping to SANS 791 and SANS 967 m.  1.2.2 110 mm \$\phi\$ UG piping to SANS 791 and SANS 967 m.  1.3.3 2 mm \$\phi\$ piping to SANS 791 and SANS 967 m.  1.2.5 VP Fittings  SVP Fittings. Fittings are to be fitted with deep seal traps.  1.2.1 \$\phi\$ 110 mm 90° bend 18			
1.1 SVP Piping Complete with all necessary supports and fittings to complete the installation. Above ground drainage: All Bends to be a type fitted with an inspection eye, and inspection chambers to be of steel manufacture.  1.1.1 110 mm φ piping to SANS 791 and SANS 967 m.  1.1.2 110 mm φ UG piping to SANS 791 and SANS 967 m.  1.1.3 32 mm φ piping to SANS 791 and SANS 967 m.  1.2 SVP Fittings SVP Fittings SVP Fittings. Fittings are to be fitted with deep seal traps.  1.2.1 φ 110 mm 90° bend 1.2.2 φ 110 mm 90° bend with IE 1.2.3 φ 110 mm 90° bend with vent horn. 1.2.4 φ 110 mm Y-junction 45° No 1.2.5 φ 110 mm aluminium pipe clips. 1.2.6 φ 40 mm vent valve No 1.2.7 φ 32 mm 90° bend with IE 1.3.1 General items General sewage equipment  1.3.1 Concrete gulley complete with gulley trap, head and grate with reducer 200x100mm No 1.3.2 Connection to 110mm min sewer line 1.3.3 φ 32 mm Bottle Trap for wash hand basin and urinals. No 1.3.4 φ 110 mm Pan connector to toilet No			
Complete with all necessary supports and fittings to complete the installation. Above ground drainage: All Bends to be a type fitted with an inspection eye, and inspection chambers to be of steel manufacture.  1.1.1 110 mm \$\phi\$ piping to SANS 791 and SANS 967 m.  1.1.2 110 mm \$\phi\$ UG piping to SANS 791 and SANS 967 m.  1.1.3 32 mm \$\phi\$ piping to SANS 791 and SANS 967 m.  1.2 SVP Fittings  SVP Fittings  SVP Fittings. Fittings are to be fitted with deep seal traps.  1.2.1 \$\phi\$ 110 mm 90° bend No.  1.2.2 \$\phi\$ 110 mm 90° bend with IE No.  1.2.3 \$\phi\$ 110 mm 90° bend with vent horn. No.  1.2.4 \$\phi\$ 110 mm Y-junction 45° No.  1.2.5 \$\phi\$ 110 mm aluminium pipe clips. No.  1.2.6 \$\phi\$ 40 mm vent valve No.  1.2.7 \$\phi\$ 32 mm 90° bend with IE No.  1.3.1 Concrete gulley complete with gulley trap, head and grate with reducer 200x100mm No.  1.3.2 Connection to 110mm min sewer line No.  1.3.3 \$\phi\$ 22 mm Bottle Trap for wash hand basin and urinals. No.  1.3.4 \$\phi\$ 110 mm Pan connector to toilet No.			_
installation. Above ground drainage: All Bends to be a type fitted with an inspection eye, and inspection chambers to be of steel manufacture.  1.1.1 110 mm \$\phi\$ piping to SANS 791 and SANS 967 m 1.1.2 110 mm \$\phi\$ piping to SANS 791 and SANS 967 m 1.1.3 32 mm \$\phi\$ piping to SANS 791 and SANS 967 m 1.2 SVP Fittings  SVP Fittings. Fittings are to be fitted with deep seal traps.  1.2.1 \$\phi\$ 110 mm 90° bend No 1.2.2 \$\phi\$ 110 mm 90° bend with IE No 1.2.3 \$\phi\$ 110 mm 90° bend with vent horn. No 1.2.4 \$\phi\$ 110 mm 90° bend with vent horn. No 1.2.5 \$\phi\$ 110 mm aluminium pipe clips. No 1.2.6 \$\phi\$ 40 mm vent valve No 1.2.7 \$\phi\$ 32 mm 90° bend with IE No 1.3.1 Concrete gulley complete with gulley trap, head and grate with reducer 200x100mm No 1.3.2 Connection to 110mm min sewer line No 1.3.3 \$\phi\$ 32 mm Bottle Trap for wash hand basin and urinals. No 1.3.4 \$\phi\$ 110 mm Pan connector to toilet No			
with an inspection eye, and inspection chambers to be of steel manufacture.  1.1.1 110 mm \$\phi\$ piping to SANS 791 and SANS 967 m  1.1.2 110 mm \$\phi\$ piping to SANS 791 and SANS 967 m  1.1.3 32 mm \$\phi\$ piping to SANS 791 and SANS 967 m  1.2 SVP Fittings  SVP Fittings. Fittings are to be fitted with deep seal traps.  1.2.1 \$\phi\$ 110 mm 90° bend No  1.2.2 \$\phi\$ 110 mm 90° bend with IE No  1.2.3 \$\phi\$ 110 mm 90° bend with vent horn. No  1.2.4 \$\phi\$ 110 mm 90° bend with vent horn. No  1.2.5 \$\phi\$ 110 mm aluminium pipe clips. No  1.2.6 \$\phi\$ 40 mm vent valve No  1.2.7 \$\phi\$ 32 mm 90° bend with IE No  1.3.1 \$Concrete gulley complete with gulley trap, head and grate with reducer 200x100mm No  1.3.2 Connection to 110mm min sewer line No  1.3.3 \$\phi\$ 32 mm Bottle Trap for wash hand basin and urinals. No  1.3.4 \$\phi\$ 110 mm Pan connector to toilet No			
1.1.1 110 mm φ piping to SANS 791 and SANS 967 m 1.1.2 110 mm φ UG piping to SANS 791 and SANS 967 m 1.1.3 32 mm φ piping to SANS 791 and SANS 967 m  1.2 SVP Fittings  SVP Fittings. Fittings are to be fitted with deep seal traps.  1.2.1 φ 110 mm 90° bend No 1.2.2 φ 110 mm 90° bend with IE No 1.2.3 φ 110 mm 90° bend with vent horn. No 1.2.4 φ 110 mm γ-junction 45° No 1.2.5 φ 110 mm aluminium pipe clips. No 1.2.6 φ 40 mm vent valve No 1.2.7 φ 32 mm 90° bend with IE No 1.3.1 Concrete gulley complete with gulley trap, head and grate with reducer 200x100mm No 1.3.2 Connection to 110mm min sewer line No 1.3.3 φ 32 mm Bottle Trap for wash hand basin and urinals. No 1.3.4 φ 110 mm Pan connector to toilet No			
1.1.2			
1.1.3 32 mm \$\phi\$ piping to SANS 791 and SANS 967 m  1.2 SVP Fittings  SVP Fittings. Fittings are to be fitted with deep seal traps.  1.2.1 \$\phi\$ 110 mm 90° bend No 1.2.2 \$\phi\$ 110 mm 90° bend with IE No 1.2.3 \$\phi\$ 110 mm 90° bend with vent horn. No 1.2.4 \$\phi\$ 110 mm Y-junction 45° No 1.2.5 \$\phi\$ 110 mm aluminium pipe clips. No 1.2.6 \$\phi\$ 40 mm vent valve No 1.2.7 \$\phi\$ 32 mm 90° bend with IE No 1.3.1 Concrete gulley complete with gulley trap, head and grate with reducer 200x100mm No 1.3.2 Connection to 110mm min sewer line No 1.3.3 \$\phi\$ 32 mm Bottle Trap for wash hand basin and urinals. No 1.3.4 \$\phi\$ 110 mm Pan connector to toilet No		R	R
1.2 SVP Fittings  SVP Fittings. Fittings are to be fitted with deep seal traps.  1.2.1 \$\phi\$ 110 mm 90° bend		R	R
SVP Fittings. Fittings are to be fitted with deep seal traps.  1.2.1	1	R	R
SVP Fittings. Fittings are to be fitted with deep seal traps.  1.2.1			
1.2.1			
1.2.1			
1.2.2 φ 110 mm 90° bend with IE  1.2.3 φ 110 mm 90° bend with vent horn.  1.2.4 φ 110 mm Y-junction 45°  1.2.5 φ 110 mm aluminium pipe clips.  No  1.2.6 φ 40 mm vent valve  No  1.2.7 φ 32 mm 90° bend with IE  No  1.3 General items  General sewage equipment  1.3.1 Concrete gulley complete with gulley trap, head and grate with reducer 200x100mm  1.3.2 Connection to 110mm min sewer line  No  1.3.3 φ 32 mm Bottle Trap for wash hand basin and urinals.  No  1.3.4 φ 110 mm Pan connector to toilet  No			
1.2.3	9 4	R	R
1.2.4 φ 110 mm Y-junction 45° No 1.2.5 φ 110 mm aluminium pipe clips. No 1.2.6 φ 40 mm vent valve No 1.2.7 φ 32 mm 90° bend with IE No  1.3 General items General sewage equipment 1.3.1 Concrete gulley complete with gulley trap, head and grate with reducer 200x100mm No 1.3.2 Connection to 110mm min sewer line No 1.3.3 φ 32 mm Bottle Trap for wash hand basin and urinals. No 1.3.4 φ 110 mm Pan connector to toilet No	2	R	R
1.2.5 φ 110 mm aluminium pipe clips.  No  1.2.6 φ 40 mm vent valve  No  1.2.7 φ 32 mm 90° bend with IE  No  1.3 General items General sewage equipment  1.3.1 Concrete gulley complete with gulley trap, head and grate with reducer 200x100mm  No  1.3.2 Connection to 110mm min sewer line  No  1.3.3 φ 32 mm Bottle Trap for wash hand basin and urinals.  No  1.3.4 φ 110 mm Pan connector to toilet  No		R	R
1.2.6		R	R
1.2.7		R	R
1.3 General items  General sewage equipment  1.3.1 Concrete gulley complete with gulley trap, head and grate with reducer 200x100mm No  1.3.2 Connection to 110mm min sewer line No  1.3.3 \$\phi\$ 32 mm Bottle Trap for wash hand basin and urinals. No  1.3.4 \$\phi\$ 110 mm Pan connector to toilet No	2	R	R
1.3 General items  General sewage equipment  1.3.1 Concrete gulley complete with gulley trap, head and grate with reducer 200x100mm No  1.3.2 Connection to 110mm min sewer line No  1.3.3 \$\phi\$ 32 mm Bottle Trap for wash hand basin and urinals. No  1.3.4 \$\phi\$ 110 mm Pan connector to toilet No	2	R	R
General sewage equipment  1.3.1 Concrete gulley complete with gulley trap, head and grate with reducer 200x100mm No  1.3.2 Connection to 110mm min sewer line No  1.3.3 \$\phi\$ 32 mm Bottle Trap for wash hand basin and urinals. No  1.3.4 \$\phi\$ 110 mm Pan connector to toilet No			
1.3.1 Concrete gulley complete with gulley trap, head and grate with reducer 200x100mm No 1.3.2 Connection to 110mm min sewer line No 1.3.3 \$\phi\$ 32 mm Bottle Trap for wash hand basin and urinals. No 1.3.4 \$\phi\$ 110 mm Pan connector to toilet No			
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$			
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$			
1.3.2       Connection to 110mm min sewer line       No         1.3.3 $\phi$ 32 mm Bottle Trap for wash hand basin and urinals.       No         1.3.4 $\phi$ 110 mm Pan connector to toilet       No	2	R	R
1.3.4 \$\phi\$ 110 mm Pan connector to toilet No		R	R
	2	R	R
1.4 Sundries Sum	2	R	R
	m -	-	R
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			+
			_
			+
			1

EM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
1	SEWER BILL OF QUANTITY		40		
	Supply, erection & commisioning of complete drainage system acc to				
	SANS 10252-2				
1.1	SVP Piping				
	Complete with all necessary supports and fittings to complete the				
	installation. Above ground drainage: All Bends to be a type fitted with				
	an inspection eye, and inspection chambers to be of steel manufacture.				
.1.1	110 mm $\phi$ piping to SANS 791 and SANS 967	m	12	R	R
.1.2	110 mm $\phi$ UG piping to SANS 791 and SANS 967	m	112	R	R
.1.3	40 mm φ piping to SANS 791 and SANS 967	m	22	R	R
1.4	32 mm φ piping to SANS 791 and SANS 967	m	26	R	R
1.2	SVP Fittings				
1.2	SVP Fittings. Fittings are to be fitted with deep seal traps.				
	Trumgs. Titings are to be ritted with deep sear traps.				
.2.1	ф 110 mm 90° bend	No	24	R	R
.2.2	φ 110 mm 90° bend with IE	No	12	R	R
.2.3	φ 110 mm Stub Stack with 2 way vent valve	No	4	R	R
.2.4	φ 110 mm 135° bend.	No	22	R	R
2.5	φ 110 mm Y-junction 45°	No	22	R	R
2.6	φ 110 mm Y-junction 45° with inspection eye.	No	2	R	R
2.7	φ 110 mm aluminium pipe clips.	No	20	R	R
2.8	φ 110 mm Access Point on SVP	No	2	R	R
.2.9	φ 110 mm 45° Rodding eye	No	3	R	R
2.10	φ 110 mm saddle connector to fit 32mm pipe	No	1	R	R
.2.11	$\phi$ 110 Reducing junction with double access heel 87,5° 100 x 40	No	2	R	R
.2.12	φ 110 Access double junction 100 x 40 90°	No	2	R	R
2.42	1 40 mm 200 h and	NI -	10	-	-
.2.13	φ 40 mm 90° bend φ 40 mm 90° plain bend with IE	No	10 12	R R	R
.2.14	φ 40 mm plain juction 87,5°	No No	2	R	R
.2.16	φ 40 mm brackets	No	6	R	R
.2.17	φ 40 x 32 reducer	No	2	R	R
.2.18	φ 40 mm brackets	No	12	R	R
.2.19	φ 40 admittance air valve/vent valve	No	2	R	R
	7	_			
2.20	φ 32 mm 90° bend	No	8	R	R
2.21	φ 32 mm 90° bend with IE	No	4	R	R
2.22	φ 32 mm plain juction 87,5°	No	6	R	R
.2.23	φ 32 mm brackets	No	18	R	R
1.3	General items				
2.1	General sewage equipment				
3.1	Concrete gulley complete with gulley trap, head and grate with reducer				
3.2	200x100mm	No	6	R	R
.3.3	Connection to 110mm min sewer line	No	2	R	R
.3.4	φ 32 mm Bottle Trap for wash hand basins.	No	10	R	R
.3.5	φ 32 mm End Female Cap	No	4	R	R
.3.6	φ 40 mm Shower Trap	No	6	R	R
.3.7	φ 40 mm S Trap for kitchen sink.	No	2	R	R
.3.8	φ 110 mm Pan connector to toilet	No	12	R	R
1.4	Sundries	Sum	-	-	R
				<u> </u>	
				1	İ

Block 21 Page 20

EM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
1	SEWER BILL OF QUANTITY				
	Supply, erection & commissioning of complete drainage system acc to				
	SANS 10252-2				
1.1	SVP Piping				
	Complete with all necessary supports and fittings to complete the				
	installation. Above ground drainage: All Bends to be a type fitted with				
	an inspection eye, and inspection chambers to be of steel manufacture.				
.1.1	110 mm $\phi$ piping to SANS 791 and SANS 967	m	12	R	R
.1.2	110 mm $\phi$ UG piping to SANS 791 and SANS 967	m	112	R	R
.1.3	40 mm φ piping to SANS 791 and SANS 967	m	22	R	R
.1.4	32 mm $\phi$ piping to SANS 791 and SANS 967	m	26	R	R
4.3	CVD Fileton				
1.2	SVP Fittings SVP Fittings. Fittings are to be fitted with deep seal traps.				
	SVP Fittings. Fittings are to be fitted with deep seal traps.				
.2.1	ф 110 mm 90° bend	No	24	R	R
.2.2	φ 110 mm 90° bend with IE	No	12	R	R
.2.3	φ 110 mm Stub Stack with 2 way vent valve	No	4	R	R
.2.4	ф 110 mm 135° bend.	No	22	R	R
.2.5	φ 110 mm Y-junction 45°	No	22	R	R
2.6	φ 110 mm Y-junction 45° with inspection eye.	No	2	R	R
2.7	φ 110 mm aluminium pipe clips.	No	20	R	R
2.8	φ 110 mm Access Point on SVP	No	2	R	R
2.9	φ 110 mm 45° Rodding eye	No	3	R	R
2.10	φ 110 mm saddle connector to fit 32mm pipe	No	1	R	R
.2.11	φ 110 Reducing junction with double access heel 87,5° 100 x 40	No	2	R	R
.2.12	φ 110 Access double junction 100 x 40 90°	No	2	R	R
.2.13	ф 40 mm 90° bend	No	10	R	R
.2.14	φ 40 mm 90° plain bend with IE	No	12	R	R
.2.15	φ 40 mm plain juction 87,5°	No	2	R	R
.2.16	φ 40 mm brackets	No	6	R	R
.2.17	φ 40 x 32 reducer	No	2	R	R
.2.18	φ 40 mm brackets	No	12	R	R
.2.19	φ 40 admittance air valve/vent valve	No	2	R	R
.2.20	φ 32 mm 90° bend	No	8	R	R
.2.21	φ 32 mm 90° bend with IE	No	4	R	R
.2.22	φ 32 mm plain juction 87,5°	No	6	R	R
2.23	φ 32 mm brackets	No	18	R	R
	4 32 mm brackets	140	10	1	1.
1.3	General items				
	General sewage equipment				
.3.1					
3.2	Concrete gulley complete with gulley trap, head and grate with reducer				
	200x100mm	No	6	R	R
.3.3	Connection to 110mm min sewer line	No	2	R	R
.3.4	φ 32 mm Bottle Trap for wash hand basins.	No	10	R	R
.3.5	φ 32 mm End Female Cap	No	4	R	R
.3.6	φ 40 mm Shower Trap	No	6	R	R
.3.7	φ 40 mm S Trap for kitchen sink.	No	2	R	R
.3.8	φ 110 mm Pan connector to toilet	No	12	R	R
1 /	Conduine	C			
1.4	Sundries	Sum	-	-	R
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Block 22 Page 21

FEMANO	DESCRIPTION	HAUT	CHANTITY	DATE	ANACHINT		
гем NO 1		UNIT	QUANTITY	RATE	AMOUNT		
	SEWER BILL OF QUANTITY						
	Supply, erection & commissioning of complete drainage system						
	acc to SANS 10252-2						
1.1	SVP Piping				_		
	Complete with all necessary supports and fittings to complete the						
	installation. Above ground drainage: All Bends to be a type fitted with an inspection eye, and inspection chambers to be of steel						
	manufacture.						
1.1.1	110 mm $\phi$ piping to SANS 791 and SANS 967	m	1	R	R		
1.1.2	110 mm $\phi$ UG piping to SANS 791 and SANS 967	m	17	R	R		
1.1.3	40 mm φ piping to SANS 791 and SANS 967	m	3	R	R		
1.1.4	32 mm φ piping to SANS 791 and SANS 967	m	2	R	R		
1.1.7	SZ mm φ piping to s/itts / sZ and s/itts so/			1"	<del>                                     </del>		
1.2	SVP Fittings				-		
					1		
	SVP Fittings. Fittings are to be fitted with deep seal traps.				1		
	0 0						
1.2.1	ф 110 mm 90° bend	No	3	R	R		
1.2.2	φ 110 mm 90° bend with IE	No	1	R	R		
1.2.3	φ 110 mm 90° bend with vent horn.	No	1	R	R		
1.2.4	φ 110 mm Y-junction 45°	No	4	R	R		
1.2.5	φ 110 mm aluminium pipe clips.	No	5	R	R		
1.2.6	φ 110 mm Access Point on SVP	No	1	R	R		
1.2.7	φ 110 mm 45° Rodding eye	No	1	R	R		
1.2.8	φ 40 mm 90° bend with IE	No	2	R	R		
1.2.9	φ 40 mm 87,5° Junction	No	1	R	R		
1.2.10	φ 40 mm aluminium pipe clip.brackets	No	2	R	R		
1.2.11	φ 40 mm vent valve	No	1	R	R		
1.2.12	φ 32 mm 90° plain bend	No	1	R	R		
1.2.13	φ 32 mm 90° bend with IE	No	1	R	R		
1.3	General items						
	General sewage equipment						
1.3.1	Concrete gulley complete with gulley trap, head and grate with						
1.5.1	reducer 200x100mm	No	2	R	R		
1.3.2	Connection to 110mm min sewer line	No	1	R	R		
1.3.3	φ 32 mm Bottle Trap for wash hand basin.	No	1	R	R		
1.3.4	φ 32 mm End Female Cap	No	1	R	R		
1.3.5	φ 40 mm P Trap for sink.	No	1	R	R		
1.3.6	φ 110 mm Pan connector to toilet	No	1	R	R		
	1		1 -	1	1		
1.4	Sundries	Sum	-	-	R		
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				1			

TOTAL BLOCK 23 CARRIED FORWARD TO SUMMARY

EM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUN'
1	SEWER BILL OF QUANTITY	ONII	QUANTITY	RAIL	AWOON
	Supply, erection & commissioning of complete drainage system				
	acc to SANS 10252-2				
1.1	SVP Piping				
	Complete with all necessary supports and fittings to complete the				
	installation. Above ground drainage: All Bends to be a type fitted				
	with an inspection eye, and inspection chambers to be of steel				
	manufacture.				
1.1.1	110 mm φ piping to SANS 791 and SANS 967	m	1	R	R
1.1.2	110 mm $\phi$ UG piping to SANS 791 and SANS 967	m	10	R	R
1.1.3	32 mm φ piping to SANS 791 and SANS 967	m	1	R	R
1.2	CVP Fittings				
1.2	SVP Fittings				
	SVP Fittings. Fittings are to be fitted with deep seal traps.				
	The state of the s		+		
1.2.1	ф 110 mm 90° bend	No	2	R	R
1.2.2	φ 110 mm 90° bend with IE	No	1	R	R
1.2.3	φ 110 mm 90° bend with vent horn.	No	1	R	R
1.2.4	φ 110 mm Y-junction 45°	No	2	R	R
1.2.5	φ 110 mm aluminium pipe clips.	No	2	R	R
1.2.6	φ 110 mm 45° Rodding eye	No	1	R	R
1.2.7	φ 40 mm vent valve	No	1	R	R
4.2.0	1 22 0001 1 11 15				<b>-</b>
1.2.8	φ 32 mm 90° bend with IE	No	1	R	R
1.3	General items				
	General sewage equipment				
1.3.1	Concrete gulley complete with gulley trap, head and grate with				
	reducer 200x100mm	No	1	R	R
1.3.2	Connection to 110mm min sewer line	No	1	R	R
1.3.3	φ 32 mm Bottle Trap for wash hand basin and urinals.	No	1	R	R
1.3.4	φ 110 mm Pan connector to toilet	No	1	R	R
1.4	Sundries	Sum	_	_	R
1.4	Sulfulles	Suiii	_	_	N N
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					-
			i	i	1

M NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
1	SEWER BILL OF QUANTITY				
	Supply, erection & commisioning of complete drainage system acc to				+
	SANS 10252-2				
l.1	SVP Piping				_
	Complete with all necessary supports and fittings to complete the				-
	installation. Above ground drainage: All Bends to be a type fitted with				
	an inspection eye, and inspection chambers to be of steel manufacture.				
	an inspection eye, and inspection chambers to be of steel manufacture.				
.1.1	110 mm φ piping to SANS 791 and SANS 967	m	12	R	R
.1.2	110 mm φ UG piping to SANS 791 and SANS 967	m	112	R	R
.1.3	40 mm φ piping to SANS 791 and SANS 967	m	22	R	R
.1.4	32 mm φ piping to SANS 791 and SANS 967	m	26	R	R
.1.4	32 mm $\phi$ piping to 3AN3 731 and 3AN3 307	111	26	IN .	- N
1.2	SVP Fittings				+
1.2					
	SVP Fittings. Fittings are to be fitted with deep seal traps.				+
2.1	4 110 mm 00° hand	NI =	24	D	- D
.2.1	φ 110 mm 90° bend	No	24	R	R
.2.2	φ 110 mm 90° bend with IE	No	12	R	R
.2.3	φ 110 mm Stub Stack with 2 way vent valve	No	4	R	R
.2.4	φ 110 mm 135° bend.	No	22	R	R
	φ 110 mm Y-junction 45°	No	22	R	R
.2.6	φ 110 mm Y-junction 45° with inspection eye.	No	2	R	R
.2.7	φ 110 mm aluminium pipe clips.	No	20	R	R
.2.8	φ 110 mm Access Point on SVP	No	2	R	R
.2.9	φ 110 mm 45° Rodding eye	No	3	R	R
	φ 110 mm saddle connector to fit 32mm pipe	No	1	R	R
2.11	φ 110 Reducing junction with double access heel 87,5° 100 x 40	No	2	R	R
2.12	φ 110 Access double junction 100 x 40 90°	No	2	R	R
	φ 40 mm 90° bend	No	10	R	R
	φ 40 mm 90° plain bend with IE	No	12	R	R
2.15	φ 40 mm plain juction 87,5°	No	2	R	R
2.16	φ 40 mm brackets	No	6	R	R
2.17	φ 40 x 32 reducer	No	2	R	R
2.18	φ 40 mm brackets	No	12	R	R
2.19	φ 40 admittance air valve/vent valve	No	2	R	R
	ф 32 mm 90° bend	No	8	R	R
	φ 32 mm 90° bend with IE	No	4	R	R
	φ 32 mm plain juction 87,5°	No	6	R	R
2.23	φ 32 mm brackets	No	18	R	R
1.3	General items				
	General sewage equipment				
.3.1					
.3.2	Concrete gulley complete with gulley trap, head and grate with reducer				
	200x100mm	No	6	R	R
.3.3	Connection to 110mm min sewer line	No	2	R	R
.3.4	φ 32 mm Bottle Trap for wash hand basins.	No	10	R	R
	φ 32 mm End Female Cap	No	4	R	R
.3.6	φ 40 mm Shower Trap	No	6	R	R
.3.7	φ 40 mm S Trap for kitchen sink.	No	2	R	R
.3.8	φ 110 mm Pan connector to toilet	No	12	R	R
L. <b>4</b>	Sundries	Sum	-	-	R

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1.1	SEWER BILL OF QUANTITY Supply, erection & commissioning of complete drainage system acc to SANS 10252-2 SVP Piping		QUANTITY		
1.1	Supply, erection & commisioning of complete drainage system acc to SANS 10252-2				
1.1	SANS 10252-2				+
1.1	CVD Dining				
1.1	jove ripling				
	Complete with all necessary supports and fittings to complete the				
	installation. Above ground drainage: All Bends to be a type fitted with				
	an inspection eye, and inspection chambers to be of steel manufacture.				
	110 mm $\phi$ piping to SANS 791 and SANS 967	m	12	R	R
	110 mm $\phi$ UG piping to SANS 791 and SANS 967	m	112	R	R
	40 mm φ piping to SANS 791 and SANS 967	m	22	R	R
.1.4	32 mm φ piping to SANS 791 and SANS 967	m	26	R	R
1.2	CVD Fittings				
	SVP Fittings SVP Fittings. Fittings are to be fitted with deep seal traps.				
	3VF Fittings. Fittings are to be litted with deep seal traps.				
2.1	φ 110 mm 90° bend	No	24	R	R
	φ 110 mm 90° bend with IE	No	12	R	R
.2.3	φ 110 mm Stub Stack with 2 way vent valve	No	4	R	R
.2.4	φ 110 mm 135° bend.	No	22	R	R
2.5	φ 110 mm Y-junction 45°	No	22	R	R
2.6	φ 110 mm Y-junction 45° with inspection eye.	No	2	R	R
2.7	φ 110 mm aluminium pipe clips.	No	20	R	R
2.8	φ 110 mm Access Point on SVP	No	2	R	R
2.9	φ 110 mm 45° Rodding eye	No	3	R	R
.2.10	φ 110 mm saddle connector to fit 32mm pipe	No	1	R	R
.2.11	$\phi$ 110 Reducing junction with double access heel 87,5° 100 x 40	No	2	R	R
.2.12	φ 110 Access double junction 100 x 40 90°	No	2	R	R
	φ 40 mm 90° bend	No	10	R	R
	φ 40 mm 90° plain bend with IE	No	12	R	R
	φ 40 mm plain juction 87,5°	No	2	R	R
	φ 40 mm brackets	No	6	R	R
	φ 40 x 32 reducer	No	2	R	R
	φ 40 mm brackets	No	12	R	R
.2.19	φ 40 admittance air valve/vent valve	No	2	R	R
.2.20	φ 32 mm 90° bend	No	8	R	R
	φ 32 mm 90° bend with IE	No	4	R	R
	φ 32 mm plain juction 87,5°	No	6	R	R
	φ 32 mm brackets	No	18	R	R
	•				
1.3	General items				
	General sewage equipment				
.3.1					
3.2	Concrete gulley complete with gulley trap, head and grate with reducer				
	200x100mm	No	6	R	R
	Connection to 110mm min sewer line	No	2	R	R
	φ 32 mm Bottle Trap for wash hand basins.	No	10	R	R
	φ 32 mm End Female Cap	No	4	R	R
	φ 40 mm Shower Trap	No	6	R	R
	φ 40 mm S Trap for kitchen sink. φ 110 mm Pan connector to toilet	No No	12	R R	R R
٥.د.	ψ 110 mm ran connector to tonet	No	12	, n	
1.4	Sundries	Sum	_	_	R
		Jann			+"
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Block 26 Page 25

Supply, e acc to SA  1.1 SVP Pipin Complete installati with an i manuface 1.1.1 110 mm 1.1.2 110 mm 1.1.3 32 mm ф  1.2 SVP Fitti  SVP Fitti  1.2.1 ф 110 mm 1.2.2 ф 110 mm 1.2.3 ф 110 mm 1.2.3 ф 110 mm 1.2.4 ф 110 mm 1.2.5 ф 110 mm 1.2.5 ф 110 mm 1.2.6 ф 110 mm 1.2.7 ф 40 mm 1.2.8 ф 32 mm 1.3 General General General 1.3.1 Concrete reducer 3 1.3.2 Connecti 1.3.3 ф 32 mm	DESCRIPTION ER BILL OF QUANTITY	UNIT			AMOUN'
Supply, e acc to SA  1.1 SVP Pipin  Complete installating with an imanuface  1.1.1 110 mm  1.1.2 110 mm  1.1.3 32 mm ф  1.2 SVP Fittin  SVP Fittin  SVP Fittin  1.2.1 ф 110 mm  1.2.2 ф 110 mm  1.2.3 ф 110 mm  1.2.3 ф 110 mm  1.2.4 ф 110 mm  1.2.5 ф 110 mm  1.2.6 ф 110 mm  1.2.7 ф 40 mm  1.2.8 ф 32 mm  1.3 General series  General series  1.3.1 Concrete reducer series  1.3.2 Connectin  1.3.3 ф 32 mm  1.3.4 ф 110 mm  1.3.4 ф 110 mm	ER BILL OF QUANTITY		QUANTITY	RATE	AMOON
acc to SA  1.1 SVP Pipi  Complete installati with an imanuface 1.1.1 110 mm  1.1.2 110 mm  1.1.3 32 mm ф  1.2 SVP Fitti  SVP Fitti  1.2.1 ф 110 mm  1.2.2 ф 110 mm  1.2.3 ф 110 mm  1.2.4 ф 110 mm  1.2.5 ф 110 mm  1.2.6 ф 110 mm  1.2.7 ф 40 mm  1.2.8 ф 32 mm  1.3 General	y, erection & commisioning of complete drainage system				_
1.1 SVP Pipin Complete installati with an imanuface 1.1.1 110 mm 1.1.2 110 mm 1.1.3 32 mm ф 1.2 SVP Fitti 1.2.1 ф 110 mm 1.2.2 ф 110 mm 1.2.3 ф 110 mm 1.2.4 ф 110 mm 1.2.5 ф 110 mm 1.2.5 ф 110 mm 1.2.7 ф 40 mm 1.2.8 ф 32 mm 1.3.4 General substitution of the substitu	SANS 10252-2				
Complete installating with an imanufact of the installating with an imanufact of the installating with an imanufact of the installating with an imanufact of the installating of the installation of the insta					
installativith an imanufact 1.1.1 110 mm 1.1.2 110 mm 1.1.3 32 mm ф 1.2 SVP Fitti 1.2.1 ф 110 mm 1.2.2 ф 110 mm 1.2.3 ф 110 mm 1.2.4 ф 110 mm 1.2.5 ф 110 mm 1.2.7 ф 40 mm 1.2.7 ф 40 mm 1.2.8 ф 32 mm 1.3.1 Concrete reducer 1.3.2 Connecti 1.3.3 ф 32 mm 1.3.4 ф 110 mm 1.3.4 ф 11	lete with all necessary supports and fittings to complete the				+
with an i manufact 1.1.1 110 mm 1.1.2 110 mm 1.1.3 32 mm ¢ 1.2 SVP Fitti 1.2.1 \$\phi\$ 110 mm 1.2.2 \$\phi\$ 110 mm 1.2.3 \$\phi\$ 110 mm 1.2.4 \$\phi\$ 110 mm 1.2.5 \$\phi\$ 110 mm 1.2.7 \$\phi\$ 40 mm 1.2.7 \$\phi\$ 40 mm 1.2.8 \$\phi\$ 32 mm 1.3.1 Concrete reducer 1.3.2 Connecti 1.3.3 \$\phi\$ 32 mm 1.3.4 \$\phi\$ 110 mm 1.3.4 \$\phi\$ 110 mm 1.3.5 \$\phi\$ 13.1 \$\phi\$ 13	ation. Above ground drainage: All Bends to be a type fitted				
1.1.1 110 mm 1.1.2 110 mm 1.1.3 32 mm ф 1.2 SVP Fitti  SVP Fitti  1.2.1 ф 110 mm 1.2.2 ф 110 mm 1.2.3 ф 110 mm 1.2.4 ф 110 mm 1.2.5 ф 110 mm 1.2.6 ф 110 mm 1.2.7 ф 40 mm 1.2.8 ф 32 mm 1.3 General General General 1.3.1 Concrete reducer 1 1.3.2 Connecti 1.3.3 ф 32 mm 1.3.4 ф 110 mm 1.3.4 ф 110 mm	n inspection eye, and inspection chambers to be of steel				
1.1.2 110 mm 1.1.3 32 mm ф 1.2 SVP Fitti  SVP Fitti  1.2.1 \$\phi\$ 110 mm 1.2.2 \$\phi\$ 110 mm 1.2.3 \$\phi\$ 110 mm 1.2.4 \$\phi\$ 110 mm 1.2.5 \$\phi\$ 110 mm 1.2.6 \$\phi\$ 110 mm 1.2.7 \$\phi\$ 40 mm 1.2.8 \$\phi\$ 32 mm 1.3 General General General 1.3.1 Concrete reducer 1 1.3.2 Connecti 1.3.3 \$\phi\$ 32 mm 1.3.4 \$\phi\$ 110 mm	facture.				
1.1.3 32 mm ф  1.2 SVP Fitti  1.2.1 \$\phi\$ 110 mi  1.2.2 \$\phi\$ 110 mi  1.2.3 \$\phi\$ 110 mi  1.2.4 \$\phi\$ 110 mi  1.2.5 \$\phi\$ 110 mi  1.2.6 \$\phi\$ 110 mi  1.2.7 \$\phi\$ 40 mm  1.2.8 \$\phi\$ 32 mm  1.3 General sign of the series	ım φ piping to SANS 791 and SANS 967	m	1	R	R
1.2 SVP Fitti  1.2.1 \$\phi\$ 110 mi 1.2.2 \$\phi\$ 110 mi 1.2.3 \$\phi\$ 110 mi 1.2.4 \$\phi\$ 110 mi 1.2.5 \$\phi\$ 110 mi 1.2.6 \$\phi\$ 110 mi 1.2.7 \$\phi\$ 40 mm 1.2.8 \$\phi\$ 32 mm 1.3 General sign General si	m φ UG piping to SANS 791 and SANS 967	m	10	R	R
1.2.1	n φ piping to SANS 791 and SANS 967	m	1	R	R
1.2.1					_
1.2.1	ittings				
1.2.1	ttings Fittings are to be fitted with door seel trans				_
1.2.2 φ 110 mm 1.2.3 φ 110 mm 1.2.4 φ 110 mm 1.2.5 φ 110 mm 1.2.6 φ 110 mm 1.2.7 φ 40 mm 1.2.8 φ 32 mm 1.3 General materials General mate	ttings. Fittings are to be fitted with deep seal traps.				1
1.2.2 φ 110 mm 1.2.3 φ 110 mm 1.2.4 φ 110 mm 1.2.5 φ 110 mm 1.2.6 φ 110 mm 1.2.7 φ 40 mm 1.2.8 φ 32 mm 1.3 General materials General mate	mm 90° bend	No	2	R	R
1.2.3 φ 110 mm 1.2.4 φ 110 mm 1.2.5 φ 110 mm 1.2.6 φ 110 mm 1.2.7 φ 40 mm 1.2.8 φ 32 mm 1.3 General g	mm 90° bend with IE	No	1	R	R
1.2.5 φ 110 mm 1.2.6 φ 110 mm 1.2.7 φ 40 mm 1.2.8 φ 32 mm 1.3 General General: 1.3.1 Concrete reducer 2 1.3.2 Connecti 1.3.3 φ 32 mm 1.3.4 φ 110 mm	mm 90° bend with vent horn.	No	1	R	R
1.2.6 φ 110 mm  1.2.7 φ 40 mm  1.2.8 φ 32 mm  1.3 General General: 1.3.1 Concrete reducer: 1.3.2 Connecti 1.3.3 φ 32 mm  1.3.4 φ 110 mm	mm Y-junction 45°	No	2	R	R
1.2.7	mm aluminium pipe clips.	No	2	R	R
1.2.8	mm 45° Rodding eye	No	1	R	R
1.3 General :  1.3.1 Concrete reducer :  1.3.2 Connecti   1.3.3 \$\int 32 \text{ mm}   1.3.4 \$\int 110 \text{ mi}	nm vent valve	No	1	R	R
1.3 General :  1.3.1 Concrete reducer :  1.3.2 Connecti   1.3.3 \$\int 32 \text{ mm}   1.3.4 \$\int 110 \text{ mi}					
General :  1.3.1 Concrete reducer 2  1.3.2 Connecti 1.3.3 φ 32 mm 1.3.4 φ 110 mm	nm 90° bend with IE	No	1	R	R
General :  1.3.1 Concrete reducer 2  1.3.2 Connecti 1.3.3 φ 32 mm 1.3.4 φ 110 mm					_
General :  1.3.1 Concrete reducer 2  1.3.2 Connecti 1.3.3 φ 32 mm 1.3.4 φ 110 mm	ral itame				_
1.3.1 Concrete reducer 2 1.3.2 Connecti 1.3.3 \$\phi\$ 32 mm 1.3.4 \$\phi\$ 110 mm	al sewage equipment				
reducer 2 1.3.2 Connecti 1.3.3 φ 32 mm 1.3.4 φ 110 mm	ar sewage equipment				+
reducer 2 1.3.2 Connecti 1.3.3 φ 32 mm 1.3.4 φ 110 mm	ete gulley complete with gulley trap, head and grate with				
1.3.3	er 200x100mm	No	1	R	R
1.3.4 ф 110 mi	ection to 110mm min sewer line	No	1	R	R
1	nm Bottle Trap for wash hand basin and urinals.	No	1	R	R
1.4 Sundries	mm Pan connector to toilet	No	1	R	R
1.4 Sundries					
	les	Sum	-	-	R
					+
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EM NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
1	SEWER BILL OF QUANTITY	Oldi	QUANTITI	MAIL	AWOON
	Supply, erection & commissioning of complete drainage system acc to				
	SANS 10252-2				
1.1	SVP Piping				
	Complete with all necessary supports and fittings to complete the				
	installation. Above ground drainage: All Bends to be a type fitted with				
	an inspection eye, and inspection chambers to be of steel manufacture.				
1.1.1	110 mm φ UG piping to SANS 791 and SANS 967	m	45	R	R
1.2	SVP Fittings				
	SVP Fittings. Fittings are to be fitted with deep seal traps.				
1.2.1	ф 110 mm 90° bend	No	1	R	R
1.2.2	φ 110 mm 90° bend with IE	No	1	R	R
1.2.3	ф 110 mm 135° bend.	No	1	R	R
1.2.4	φ 110 mm Y-junction 45°	No	1	R	R
1.2.5	φ 110 mm 45° Rodding eye	No	1	R	R
1.3	General items				
1 2 1	General sewage equipment				
1.3.1	Concrete gulley complete with gulley trap, head and grate with reducer				
1.3.2	200x100mm	No	1	R	R
1.3.3	Connection to 110mm min sewer line	No	1	R	R
1.4	Sundries	Sum	-	-	R
		-			

M NO	DESCRIPTION CENTER DITTO	UNIT	QUANTITY	RATE	AMOUN
1	SEWER BILL OF QUANTITY				
	Supply, erection & commisioning of complete drainage system acc to SANS 10252-2				
1.1					
1.1	SVP Piping  Complete with all necessary supports and fittings to complete the				
	installation. Above ground drainage: All Bends to be a type fitted				
	with an inspection eye, and inspection chambers to be of steel				
	manufacture.				
1.1.1	110 mm φ piping to SANS 791 and SANS 967	m	1	R	R
1.1.2	110 mm φ UG piping to SANS 791 and SANS 967	m	10	R	R
1.1.3	32 mm φ piping to SANS 791 and SANS 967	m	1	R	R
1.2	SVP Fittings				
	SVP Fittings. Fittings are to be fitted with deep seal traps.				
	1 110 2001				+_
1.2.1	φ 110 mm 90° bend	No	2	R	R
1.2.2	φ 110 mm 90° bend with IE	No	1	R R	R
1.2.3 1.2.4	φ 110 mm 90° bend with vent horn. φ 110 mm Y-junction 45°	No No	2	R	R
1.2.5	φ 110 mm aluminium pipe clips.	No	2	R	R
1.2.6	φ 110 mm 45° Rodding eye	No	1	R	R
1.2.7	φ 40 mm vent valve	No	1	R	R
1.2.7	φ 40 mm vene valve	140	-	1.	<u> </u>
1.2.8	φ 32 mm 90° bend with IE	No	1	R	R
		-			
1.3	General items				
	General sewage equipment				
	<u> </u>				
1.3.1	Concrete gulley complete with gulley trap, head and grate with				
	reducer 200x100mm	No	1	R	R
1.3.2	Connection to 110mm min sewer line	No	1	R	R
1.3.3	φ 32 mm Bottle Trap for wash hand basin and urinals.	No	1	R	R
1.3.4	φ 110 mm Pan connector to toilet	No	1	R	R
					1_
1.4	Sundries	Sum	-	-	R
					1
	I I				

## MOEDWIL COMBINED SCHOOL

ITEM	BILL NUMBER	Total: Amount
	SUMMARY OF BILLS OF QUANTITIES	
	SEWER SERVICES	
4	DILL 4. DDFLIMINADY G. CENEDALS	_
1	BILL 1: PRELIMINARY & GENERALS	R
2	BLOCK 6	R
3	BLOCK 7	R
4	BLOCK 8	R
_		
5	BLOCK 9	R
6	BLOCK 10	R
7	BLOCK 11	R
,	DLOCK 11	I N
8	BLOCK 12	R
9	BLOCK 13	R
40		
10	BLOCK 14	R
11	BLOCK 15	R
12	BLOCK 16	R
12	DLUCK 10	N .
13	BLOCK 17	R
14	BLOCK 18	R
15	BLOCK 19	R
16	BLOCK 20	R
17	DLOCK 31	
''	BLOCK 21	R
18	BLOCK 22	R
19	BLOCK 23	R
20	BLOCK 24	R
.l		]

21	BLOCK 25	R
22	BLOCK 26	R
23	BLOCK 33	R
25	BLOCK 33	ĸ
24	BLOCK 34	R
25	BLOCK M	R
TOTAL PHAS	SE 2 SEWAGE	<u>R</u>

WET SERVICES INSTALLATIONS SUMMARY			
Bill No.	DESCRIPTION	TOTAL AMOUNT	
1	PHASE 2: WET SERVICES	R	
2	PHASE 2: WET SERVICES - DRAINAGE	R	
TOTAL PA	RT D MECHANICAL INSTALLATIONS CARRIED FORWARD TO BUILDING	R	

## PART E:

	MOEDWIL COMBINED PHASE 2 PROJECT				
PAGE NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
1	BILL No. 1 OCCUPATIONAL HEALTH & SAFETY				
1	The Contractor shall comply with all the requirements set out in the Construction Regulations, 2014, issued under Occupational Health and Safety Act (Act 85 of 1993) It is required of the Contractor to thoroughly study these Regulations and Health and Safety Specification that must be read together with and is deemed to be to be incorporated under this Section of the Bill of quantities. It is required of the Contractor to thoroughly study these Regulations and Health and Safety Specification that must be read together with and is deemed to be to be incorporated under this Section of the Bill of quantities.				
	The Contractor must take note that compliance with the Occupational Health and Safety Act, Construction Regulations and Health and Safety Specification is compulsory. In the event of partial or non-compliance, the Principal Agent, reserve the right to delay issuing of any progress payment certificate payment until the Contractor provides satisfactory proof of compliance. The Contractor shall not be entitled to any compensation of whatsoever nature, including interest due to such delay of payment				
1	Provision of pricing of the Occupational Health and Safety Specification is made under this bill and it explicitly pointed out that all requirements of the aforementioned are deemed to be priced hereunder and no additional claim in this regard shall be entertained.				
	Note: The file shall be a lever arch with original color document of acceptable standards. The file will be expanded during the project as and when required by the client				
1	OCCOPATIONAL HEALTH & SAFETY				
1	PROGRAMME				
1	Set up a site and job specific Health and Safety Plan, including a Safety File on site to contain the following:				
1	HEALTH AND SAFETYPERSONNEL				
1.1	Safety Officer	Mths			
	Carried to Collction			R	-
I	I	I	I		I

	MOEDWIL COMBINED PHASE 2 PROJECT				
PAGE NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
2	Copy of Occupational Health and Safety Act (Act 85 of 1993 – 24 th version/edition) including Construction Regulations August 2014	Item			
2.2	Induction Training/ Re-induction/Re-fresher	Item			
2.2.2	HEALTH AND SAFETY FILE & AMINISTRATION				
2.2.3	Health and Safety File	Item			
2.2.4	Health and Safety Administration, implementation and maintenance on site including the copies of DSTI, Toolbox Talks, Checklist/Inspection/Internal Audits, Reports, Munites of the Safety Committee Meetings, Printer/photocoping macine & toner/ink/catrages	Item			
2.3	OCCUPATIONAL HEALTH AND SAFETY TRAINIG				
2.3.1	Construction Health and Safety Supervision	Item			
2.3.2	Health and Safety Representative Training	Item			
2.3.3	First Aid Training	Item			
2.3.4	Fire Fighting Trainng	Item			
2.3.4	Incident Investigation/Incident Management	Item			
2.3.5	Hazard Identification Risk Assessment (HIRA)	Item			
2.3.6	Scaffolding/ Fall Protection Plan	Item			
	Carried to Collction			R	

MOEDWIL COMBINED PHASE 2 PROJECT						
PAG	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT	
3	FIRST AID/ EMERGENCY					
3.1.	First Aid box & refilling during the project	Item				
3.1.	Airtime/ Data (Communication)	Item				
3.1.	Identification Signage	Item				
3.1.	Rescue Equipment and Strechers	Item				
3.2	FIRE PROTECTION					
3.2	Fire Extinguishers	No				
3.2.	Fire Extinguishers Maintanace	Item				
3.3	FLAMMABLE LIQUIDS STORAGE					
3.3	Storage facilities (steel frame, lockable gate, drip trays)	Item				
3.4	DIESIL STORAGE	Item				
3.5	SIGNAGE					
3.5	Mandatory - Blue	No				
3.5	2 Information - Green	No				
3.5	3 Warning - Yellow	No				
3.5.	Prohibition - Red	No				
3.6	ELECTRICAL -LOCKOUT	Item				
3.6	L Logs	Item				
3.6	2 Tags	Item				
3.6	Permit books	Item				
	Carried to Collction			R		

	MOEDWIL COMBINED PHASE 2 PROJECT				
PAGE NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
4.1	PERAONAL PROTECTIVE EQUIPMENT (PRINCIPAL & SUB- CONTRACTOR				
4.1.1	Overalls with reflective stripe -	Item			
4.1.2	Hard hats	Item			
4.1.3	Steel-cap safety boots	Item			
4.1.4	Water boots	Item			
4.1.5	Rain coats	Item			
4.1.6	Safety goggles	Item			
4.2	Hearing Protection				
4.2.1	Ear plugs	Item			
4.3	Respiratory Protection				
4.3.1	Dust Mask	Item			
4.4	Hand Protection				
4.4.1	PVC gloves -				
4.4.2	Multi-purpose lether gloves	Item			
4.5	Eyes Protection	Item			
4.5.1	Safety goggles				
4.6	Hot-work PPE				
4.6.1	Leather Aprons	Item			
4.6.2	Leather Spats	Item			
4.6.3	Face shield				
4.6.4	Welding gloves	Item			
4.6.5	Welding Helmet	Item			
	Carried to Collction			R	

	MOEDWIL COMBINED PHASE 2 PROJECT				
PAGE NO	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	Special Equipment				
	Specific Reqyirement of Covird 19 (Corona Virus)				
5.1.1	Infrared Non Contact Thermometer	No			
5.1.2	70% Alcohol hand sanitizor 5L	No			
5.1.3	70% Alcohol hand sanitizor 5L	No			
5.1.4	Hand Soap 10L	No			
5.1.5	Multipurpose Cleaning Detergent 5L	Mnths			
5.1.6	Paper Towels - Box of 2000	No			
5.1.7	Sanitizor stand	No			
5.1.8	Covid 19 Warning/Information Signs	No			
5.1.9	Covid Screening Area & Covid Isolation Room				
5.1.10	Training on Corvid 19 (Compliance Officer)				
5.1.11	Face Sheilds				
5.1.12	3 Play Face Cloth Mask				
5.1.13	High Pressure Mobile Disinfection Kit (Mobile plants and vehicles)				
5.2	FALL PROTECTION /PREVENTION EQUIPMENT				
5.2.1	Safety Harness with double Lanyards - Harness Type	No			
	Basic fall arrest harness with double lanyard and scaffold hooks				
5.2.2	Advanced Fall Arrest Kit	No			
5.2.3	In-house training for erectors	Item			
5.2.3	Drop zone - ( Barricade Work Area -Lime/Orange netting, 1,2 x 30m, 1,2 x 50m	No			
5.2.4	Warning signage - (Man Working on heights)	No			
5.3	STAFF TRANSPORTATION				
5.3.1	Safety Vehicle Transport for Staff Members	Mnths			

MOEDWIL COMBINED PHASE 2 PROJEC	Г			
DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
Rescue equipment and stretcher	Item			
Asbestos Demolition, Removal & Disposal	Item			
Carried to Collction			R	
	DESCRIPTION  Rescue equipment and stretcher  Asbestos Demolition, Removal & Disposal	Rescue equipment and stretcher Item  Asbestos Demolition, Removal & Disposal Item	DESCRIPTION UNIT QUANTITY  Rescue equipment and stretcher  Asbestos Demolition, Removal & Disposal Item	DESCRIPTION UNIT QUANTITY RATE  Rescue equipment and stretcher  Asbestos Demolition, Removal & Disposal Item

Bill No. 1		
Occupational Health & Safety		
COLLECTIONS		
Total Brought Forward From Page No.	<u>Page</u> <u>No.</u>	<u>Amount</u>
Health and Safety Personnel	1	-
Health and Safety Administration	2	-
First Aid & Emergency	3	-
Personal Protective Equipment	4	-
Special Equipment	5	-
Carried Forward to Final Summary		R