REPUBLIC OF KENYA

MINISTRY OF LANDS, PUBLIC WORKS, HOUSING, AND URBAN DEVELOPMENT

STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

Tender Document

for

PROPOSED CONSTRUCTION OF THE UTALII COLLEGE STUDENT VILLAGE ACCOMMODATION IN NAIROBI COUNTY(WITH ASSOCIATED INFRASTRUCTURE AND AMENITIES), MATHARE CONSTITUENCY, NAIROBI COUNTY

TENDER NO.

MLPWHUD/SDHUD/AHP/497/2024-2025497/2024-2025

Ministry of Lands, Public Works, Housing, and Urban Development,
State Department for Housing and Urban Development,
P.O Box 30119-00100
Nairobi, Kenya
Tel: +254-020-2713833

Closing Date: 10th April 2025

PROJECT DATA SHEET

PROPOSED CONSTRUCTION OF THE UTALII COLLEGE STUDENT VILLAGE ACCOMMODATION IN NAIROBI COUNTY(WITH ASSOCIATED INFRASTRUCTURE AND AMENITIES), MATHARE CONSTITUENCY, NAIROBI COUNTY			
Item	**DETAILS OF SITE**	**PROJECT PARTICULARS**	
1	**Tender No**	MLPWHUD/SDHUD/AHP/497/2024-2025	
2	**Site location**	KENYA UTALII COLLEGE	
4	**Land Size**	3 ACRES	
5	**Scope**	2 NO. HOSTEL BLOCK G+7 1160 PAX comprising 290 no. of quad bed units (1160 PAX capacity) 4 no. of study rooms 4 no. of shops 2 no. office 4 no. of food stalls 2 No. Minimart 2 No. Laundromat ***Note: Bidders are notified that the Procuring Entity may make changes to the scope of works during evaluation of tenders***	
6	**Amenities**	Guardhouse, garbage receptacles, gate house and a powerhouse	
7	**External works**	Roads & Parking works, Sewer, Underground water tank, borehole and a waste water treatment plant	
8	**Built area**	11,853.00 sm	

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TENDER DOCUMENTS FOR PROCUREMENT OF WORKS (BUILDING AND ASSOCIATED CIVIL ENGINEERING WORKS)

1) NAME AND CONTACT ADDRESSES OF PROCURING ENTITY

Ministry of Lands, Public Works, Housing, and Urban Development,
State Department for Housing and Urban Development,
P.O Box 30119-00100
Nairobi, Kenya

Tel: +254-020-2713833

2) Invitation to Tender (ITT) No: MLPWHUD/SDHUD/AHP/497/2024-2025

3) Tender Name: **PROPOSED CONSTRUCTION OF THE UTALII COLLEGE STUDENT VILLAGE ACCOMMODATION IN NAIROBI COUNTY(WITH ASSOCIATED INFRASTRUCTURE AND AMENITIES), MATHARE CONSTITUENCY, NAIROBI COUNTY**

INVITATION TO TENDER

PROCURING ENTITY: STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT

CONTRACT NAME AND DESCRIPTION: PROPOSED CONSTRUCTION OF THE UTALII COLLEGE STUDENT VILLAGE ACCOMMODATION IN NAIROBI COUNTY(WITH ASSOCIATED INFRASTRUCTURE AND AMENITIES), MATHARE CONSTITUENCY, NAIROBI COUNTY

1. The **STATE DEPARTMENT FOR HOUSING AND URBAN DEVELOPMENT** invites sealed tenders for the construction of : PROPOSED CONSTRUCTION OF THE UTALII COLLEGE STUDENT VILLAGE ACCOMMODATION IN NAIROBI COUNTY(WITH ASSOCIATED INFRASTRUCTURE AND AMENITIES), MATHARE CONSTITUENCY, NAIROBI COUNTY

2. Tendering will be conducted under open competitive method (National) using a standardized tender document. Tendering is open to Contractors Registered in the appropriate Category for Builders Works**(NCA 2)** .The tender is open to those who meet the requirements of eligibility as contained in this invitation and the tender documents

3. Qualified and interested tenderers may obtain further information and inspect the Tender Documents during office hours at the address given below.

4. A complete set of tender documents may be obtained, downloaded and viewed by interested tenderers for free from the website *www.housingandurban.go.ke*. Tenderers who download the tender document must forward their particulars immediately to the Principal Secretary, State Department for Housing and Urban Development to facilitate any further clarifications or addendum that may be issued. Further clarifications and Addendum shall be posted at *www.housingandurban.go.ke*.

5. Tender documents may be viewed and downloaded for free from the website *https://housingandurban.go.ke/tenders/*. Tenderers who download the tender document must forward their particulars immediately to **the Principal Secretary, State Department for Housing and Urban Development, *procurement@housingandurban.go.ke*** to facilitate any further clarification or addendum that may be issued. Further clarifications and Addendum shall be posted at www.housingandurban.go.ke.

6. Tenders shall be quoted be in Kenya Shillings and shall include all taxes. Tenders shall remain valid for **120 days** from the date of opening of tenders.

7. All Tenders must be accompanied by a by a **Tender Security as specified in the Tender Data Sheet Clause ITT 19.1**.

8. The Tenderer **shall** chronologically serialize all pages of the tender documents submitted in the numerical format i.e., 1, 2, 3, 4 ..... including the cover page. Tender Document must be tape bound and not Spiral bound. Spiral bound documents shall be automatically disqualified. In addition, bidders **MUST** submit a soft copy in PDF format during bid opening which is a replica of the original bid document. **This instruction is issued pursuant to Section 74(1)(j) of the Public Procurement and Assets Disposal Act, 2015.**

9. Completed tenders must be delivered to the address below on or before **10th April 2025 at 9:00am (East African Time).** Electronic Tenders ***will not*** be permitted.

10. Tenders will be opened immediately after the deadline date and time specified above or any deadline date and times specified later. Tenders will be publicly opened in the presence of the Tenderers' designated representatives who choose to attend at the address below.

11. Late tenders will be rejected.

12. The addresses referred to above are:

A. ***Address for obtaining further information***

State Department for Housing and Urban Development
Room 606 B, 6th Floor, Ardhi House, 1st Ngong Avenue
P.O. Box 30119 -00100
NAIROBI.

B. ***Address for Submission of Tenders.***

State Department for Housing and Urban Development
Tender Box, 6th Floor, Ardhi House, 1st Ngong Avenue
P.O. Box 30119 -00100
NAIROBI.

C. ***Address for Opening of Tenders.***

State Department for Housing and Urban Development
Boardroom, 6th Floor, Ardhi House, 1st Ngong Avenue
P.O. Box 30119 -00100
NAIROBI.

Head, Supply Chain Management Services
For: PRINCIPAL SECRETARY

PART1: TENDERING PROCEDURES

SECTION I - INSTRUCTIONS TO TENDERERS

A GENERAL PROVISIONS

1.0 Scope of tender

1.1 The Procuring Entity as defined in the Appendix to Conditions of Contract invites tenders for Works Contract as described in the tender documents. The name, identification, and number of lots (contracts) of this Tender Document are specified in the TDS.

1.2 Throughout this tendering document:

a) The term "inwriting" means communicated in written form (e.g. by mail, e-mail, fax, including if specified in the TDS, distributed or received through the electronic-procurement system used by the Procuring Entity) with proof of receipt;

b) if the context so requires, "singular" means "plural" and vice versa.

c) "Day" means calendar day, unless otherwise specified as "Business Day". A Business Day is any day that is an official working day of the Procuring Entity. It excludes official public holidays.

2.0 Fraud and corruption

2.1 The Procuring Entity requires compliance with the provisions of the Public Procurement and Asset Disposal Act, 2015, Section 62 "Declaration not to engage in corruption". The tender submitted by a person shall include a declaration that the person shall not engage in any corrupt or fraudulent practice and a declaration that the person or his or her sub-contractors are not debarred from participating in public procurement proceedings.

2.2 The Procuring Entity requires compliance with the provisions of the Competition Act 2010, regarding collusive practices in contracting. Any tenderer found to have engaged in collusive conduct shall be disqualified and criminal and/or civil sanctions may be imposed. To this effect, Tenders shall be required to complete and sign the "Certificate of Independent Tender Determination" annexed to the Form of Tender.

2.3 Tenderers shall permit and shall cause their agents (whether declared or not), subcontractors, sub-consultants, service providers, suppliers, and their personnel, to permit the Procuring Entity to inspect all accounts, records and other documents relating to any initial selection process, pre-qualification process, tender submission, proposal submission, and contract performance (in the case of award), and to have them audited by auditors appointed by the Procuring Entity.

2.4 Unfair Competitive Advantage - Fairness and transparency in the tender process require that the firms or their Affiliates competing for a specific assignment do not derive a competitive advantage from having provided consulting services related to this tender. To that end, the Procuring Entity shall indicate in the **Data Sheet** and make available to all the firms together with this tender document all in formation that would in that respect give such firm any unfair competitive advantage over competing firms.

3.0 Eligible tenderers

3.1 A Tenderer may be a firm that is a private entity, a state-owned enterprise or institution subject to ITT 3.8, or an individual or any combination of such entities in the form of a joint venture (JV) under an existing agree mentor with the intent to enter in to such an agreement supported by a letter of intent. In the case of a joint venture, all members shall be jointly and severally liable for the execution of the entire Contract in accordance with the Contract terms. The JV shall nominate a Representative who shall have the authority to conduct all business for and on behalf of any and all the members of the JV during the tendering process and, in the event the JV is awarded the Contract, during contract execution. Members of a joint venture may not also make an individual tender, be a subcontractor in a separate tender or be part of another joint venture for the purposes of the same Tender. The maximum number of JV members shall be specified in the **TDS.**

3.2 Public Officers of the Procuring Entity, their Spouses, Child, Parent, Brothers or Sister. Child, Parent, Brother or Sister of a Spouse, their business associates or agents and firms/organizations in which they have a substantial or controlling interest shall not be eligible to tender or be awarded a contract. Public Officers are also not allowed to participate in any procurement proceedings.

3.3 A Tenderer shall not have a conflict of interest. Any tenderer found to have a conflict of interest shall be disqualified. A tenderer may be considered to have a conflict of interest for the purpose of this tendering process, if the tenderer:

a) Directly or indirectly controls, is controlled by or is under common control with an other tenderer.

b) Receives or has received any director indirect subsidy from another tenderer.

c) Has the same legal representative as an other tenderer.

d) Has a relationship with another tenderer, directly or through common third parties, that puts it in a position to influence the tender of an other tenderer, or influence the decisions of the Procuring Entity regarding this tendering process.

e) Any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the goods or works that are the subject of the tender.

f) Any of its affiliates has been hired (or is proposed to be hired) by the Procuring Entity as a consultant for Contract implementation.

g) Would be providing goods, works, or non-consulting services resulting from or directly related to consulting services for the preparation or implementation of the contract specified in this Tender Document.

h) Has a close business or personal relationship with senior management or professional staff of the Procuring Entity who has the ability to influence the bidding process and:

   i) Are directly or indirectly involved in the preparation of the Tender document or specifications of the Contract, and/or the Tender evaluation process of such contract; or

   ii) May be involved in the implementation or supervision of such Contract unless the conflicts temming from such relationship has been resolved in a manner acceptable to the Procuring Entity throughout the tendering process and execution of the Contract.

3.4 A tenderer shall not be involved in corrupt, coercive, obstructive or fraudulent practice. A tenderer that is proven to have been involved in any of these practices shall be automatically disqualified.

3.5 A Tenderer (either individually or as a JV member) shall not participate in more than one Tender, except for permitted alternative tenders. This includes participation as a subcontractor in other Tenders. Such participation shall result in the disqualification of all Tenders in which the firm is involved. Members of a joint venture may not also make an individual tender, be a sub-contractor in a separate tender or be part of another joint venture for the purposes of the same Tender. A firm that is not a tenderer or a JV member may participate as a subcontractor in more than one tender.

3.6 A Tenderer may have the nationality of any country, subject to the restrictions pursuant to ITT3.9. ATenderer shall be deemed to have the nationality of a country if the Tenderer is constituted, incorporated or registered in and operates in conformity with the provisions of the laws of that country, as evidenced by its articles of incorporation (or equivalent documents of constitution or association) and its registration documents, as the case may be. This criterion also shall apply to the determination of the nationality of proposed sub-contractors or sub-consultants for any part of the Contract including related Services.

3.7 A Tenderer that has been debarred from participating in public procurement shall be ineligible to tender or be awarded a contract. The list of debarred firms and individuals is available from the website of PPRA www.ppra.go.ke.

3.8 A Tenderer that is a state-owned enterprise or a public institution in Kenya may be eligible to tender and be awarded Contract(s) only if it is determined by the Procuring Entity to meet the following conditions, i.e. if it is:

i) A legal public entity of Government and/or public administration,

ii) financially autonomous and not receiving any significant subsidies or budget support from any public entity or Government, and;

(iii) operating under commercial law and vested with legal rights and liabilities similar to any commercial enterprisetoenableitcompetewithfirmsintheprivatesectoronanequalbasis.

3.9 Firms and individuals shall be ineligible if their countries of origin are:

(a) As a matter of law or official regulations, Kenya prohibits commercial relations with that country;

(b) By an act of compliance with a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations, Kenya prohibits any import of goods or contracting of works or services from that country, or any payments to any country, person, or entity in that country.

A tenderer shall provide such documentary evidence of eligibility satisfactory to the Procuring Entity, as the Procuring Entity shall reasonably request.

3.10 Foreign tenderers are required to source at least forty (40%) percent of their contract inputs (in supplies, local sub-contracts and labor) from citizen suppliers and contractors. To this end, a foreign tenderer shall provide in its tender documentary evidence that this requirement is met. Foreign tenderers not meeting this criterion will be automatically disqualified. Information required to enable the Procuring Entity determine if this condition is met shall be provided for this purpose in *"SECTIONI II - EVALUATION AND QUALIFICATION CRITERIA, Item 9".*

3.11 Pursuant to the eligibility requirements of ITT 3.10, a tender is considered a foreign tenderer, If it is registered in Kenya and has less than 51 percent ownership by nationals of Kenya and if it does not subcontract to foreign firms or individuals more than 10 percent of the contract price, excluding provisional sums. JVs are considered as foreign tenderers if the individual member firms registered in Kenya have less 51 percent ownership by nationals of Kenya. The JV shall not subcontract to foreign firms more than 10 percent of the contract price, excluding provisional sums.

3.12 The National Construction Authority Act of Kenya requires that all local and foreign contractors be registered with the National Construction Authority and be issued with a Registration Certificate before they can undertake any construction works in Kenya. Registration shall not be a condition for tender, but it shall be a condition of contract award and signature. A selected tenderer shall be given opportunity to register before such award and signature of contract. Application for registration with National Construction Authority may be accessed from the website www.nca.go.ke.

3.13 The Competition Act of Kenya requires that firms wishing to tender as Joint Venture undertakings which may prevent, distort or lessen competition in provision of services are prohibited unless they are exempt in accordance with the provisions of Section 25 of the Competition Act, 2010. JVs will be required to seek for exemption from the Competition Authority. Exemption shall not be a condition for tender, but it shall be a condition of contract award and signature. A JV tenderer shall be given opportunity to seek such exemption as a condition of award and signature of contract. Application for exemption from the Competition Authority of Kenya may be accessed from the website www.cak.go.ke.

4.14 A kenyan tenderer shall be eligible to tender if it provides evidence of having fulfilled his/her tax obligations by producing valid tax compliance certificate or tax exemption certificate issued by the Kenya Revenue Authority.

4.0 Eligible goods, equipment, and services

4.1 Goods, equipment and services to be supplied under the Contract may have their origin in any country that is not ineligible under ITT 3.9. At the Procuring Entity's request, Tenderers may be required to provide evidence of the origin of Goods, equipment and services.

4.2 Any goods, works and production processes with characteristics that have been declared by the relevant national environmental protection agency or by other competent authority as harmful to human beings and to the environment shall not be eligible for procurement.

5.0 Tenderer's responsibilities

5.1 The tenderer shall bear all costs associated with the preparation and submission of his/her tender, and the Procuring Entity will in no case be responsible or liable for those costs.

5.2 The tenderer, at the tenderer's own responsibility and risk, is encouraged to visit and examine and inspect the Site of the Works and its surroundings and obtain all information that may be necessary for preparing the tender and entering into a contract for construction of the Works. The costs of visiting the Site shall beat the tenderer's own expense.

5.3 The Tenderer and any of its personnel or agents will be granted permission by the Procuring Entity to enter upon its premises and lands for the purpose of such visit. The Tenderer shall indemnify the Procuring Entity again stall liability arising from death or personal injury, loss of or damage to property, and any other losses and expenses incurred as a result of the examination and inspection.

5.4 The tenderer shall provide in the Form of Tender and Qualification Information, a preliminary description of the proposed work method and schedule, including charts, as necessary or required.

B. CONTENTS OF TENDER DOCUMENTS

6.0 Sections of Tender Document

6.1 The tender document consists of Parts 1, 2, and 3, which includes all the sections specified below, and which should be read in conjunction with any Addenda issued in accordance with ITT 10.

PART 1: Tendering Procedures
Section I – Instructions to Tenderers
Section II – Tender Data Sheet (TDS)
Section III- Evaluation and Qualification
Criteria Section IV – Tendering Forms

PART 2: Works' Requirements
Section V - Bills of Quantities
Section VI - Specifications
Section VII - Drawings

PART 3: **Conditions of Contract and Contract Forms**
Section VIII - General Conditions (GCC)
Section IX - Special Conditions of Contract
Section X- Contract Forms

6.2 The Invitation to Tender Notice issued by the Procuring Entity is not part of the Contract documents. Unless obtained directly from the Procuring Entity, the Procuring Entity is not responsible for the completeness of the Tender document, responses to requests for clarification, the minutes of a pre-arranged site visit and those of the pre-Tender meeting (if any), or Addenda to the Tender document in accordance with ITT 10. Incase of any contradiction, documents obtained directly from the Procuring Entity shall prevail.

6.3 The Tenderer is expected to examine all instructions, forms, terms, and specifications in the Tender Document and to furnish with its Tender all information and documentation as is required by the Tender document.

7.0 Clarification of Tender Document, Site Visit, Pre-tender Meeting

7.1 A Tenderer requiring any clarification of the Tender Document shall contact the Procuring Entity in writing at the Procuring Entity's address specified in the **TDS** or raise its enquiries during the pre-Tender meeting if provided for in accordance with ITT 7.2. The Procuring Entity will respond in writing to any request for clarification, provided that such request is received no later than the period specified in the **TDS p**rior to the deadline for submission of tenders. The Procuring Entity shall forward copies of its response to all tenderers who have acquired the Tender documents in accordance with ITT 7.4, including a description of the inquiry but without identifying its source. If so specified in the **TDS**, the Procuring Entity shall also promptly publish its response at the web page identified in the **TDS**. Should the clarification result in changes to the essential elements of the Tender Documents, the Procuring Entity shall amend the Tender Documents following the procedure under ITT 8 and ITT 22.2.

7.2 The Tenderer, at the Tenderer's own responsibility and risk, is encouraged to visit and examine and inspect the site(s) of the required contracts and obtain all information that may be necessary for preparing a tender. The costs of visiting the Site shall be at the Tenderer's own expense. The Procuring Entity shall specify in the **TDS** if a pre-arranged Site visit and or a pre-tender meeting will be held, when and where. The Tenderer's designated representative is invited to attend a pre-arranged site visit and a pre-tender meeting, as the case may be. The purpose of the site visit and the pre-tender meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.

7.3 The Tenderer is requested to submit any questions in writing, to reach the Procuring Entity not later than the period specified in the **TDS** before the meeting.

7.4 Minutes of a pre-arranged site visit and those of the pre-tender meeting, if applicable, including the text of the

questions asked by Tenderers and the responses given, together with any responses prepared after the meeting, will be transmitted promptly to all Tenderers who have acquired the Tender Documents. Minutes shall not identify the source of the questions asked.

7.5 The Procuring Entity shall al so promptly publish anonymized (*no names*) Minutes of the pre-arranged site visit and those of the pre-tender meeting at the web page identified in the **TDS**. Any modification to the Tender Documents that may become necessary as a result of the pre-arranged site visit and those of the pre-tender meeting shall be made by the Procuring Entity exclusively through the issue of an Addendum pursuant to ITT 8 and not through the minutes of the pre-Tender meeting. Non-attendance at the pre-arranged site visit and the pre-tender meeting will not be a cause for disqualification of a Tenderer.

8.0 Amendment of Tender Documents

8.1 At any time prior to the deadline for submission of Tenders, the Procuring Entity may amend the Tender Documents by issuing addenda.

8.2 Any addendum issued shall be part of the Tender Documents and shall be communicated in writing to all who have obtained the Tender Documents from the Procuring Entity. The Procuring Entity shall also promptly publish the addendum on the Procuring Entity's website in accordance with ITT 7.5.

8.3 To give Tenderers reasonable time in which to take an addendum into account in preparing their Tenders, the Procuring Entity should extend the deadline for the submission of Tenders, pursuant to ITT 22.2.

C. PREPARATION OF TENDERS

9. Cost of Tendering

The Tenderer shall bear all costs associated with the preparation and submission of its Tender, and the Procuring Entity shall not be responsible or liable for those costs, regardless of the conduct or outcome of the tendering process.

10.0 Language of Tender

The Tender, as well as all correspondence and documents relating to the tender exchanged by the tenderer and the Procuring Entity, shall be written in the English Language. Supporting documents and printed literature that are part of the Tender may be in another language provided they are accompanied by an accurate and notarized translation of the relevant passages into the English Language**,** in which case, for purposes of interpretation of the Tender, such translation shall govern.

11.0 Documents Comprising the Tender

11.1 The Tender shall comprise the following:

a) Form of Tender prepared in accordance with ITT 12;
b) Schedules including priced Bill of Quantities, completed in accordance with ITT 12 and ITT 14;
c) Tender Security or Tender-Securing Declaration, in accordance with ITT 19.1;
d) Alternative Tender, if permissible, in accordance with ITT 13;
e) ***Authorization****:* written confirmation authorizing the signatory of the Tender to commit the Tenderer, in accordancewithITT20.3;
f) *Qualifications:* documentary evidence in accordance with ITT 17 establishing the Tenderer's qualifications to perform the Contract if its Tender is accepted;
g) *Conformity:* a technical proposal in accordance with ITT 16;
h) Any other document required in the **TDS.**

11.2 In addition to the requirements under ITT 11.1, Tenders submitted by a JV shall include a copy of the Joint Venture Agreement entered into by all members. Alternatively, a letter of intent to execute a Joint Venture Agreement in the event of a successful Tender shall be signed by all members and submitted with the Tender, together with a copy of the proposed JV Agreement. Change of membership and conditions of the JV prior to contract signature will render the tender liable for disqualification.

12.0 Form of Tender and Schedules

12.1 The Form of Tender and Schedules, including the Bill of Quantities, shall be prepared using the relevant forms furnished in Section IV, Tendering Forms. The forms must be completed without any alterations to the text, and no substitutes shall be accepted except as provided under ITT 20.3. All blank spaces shall be filled in with the information requested. The Tenderer shall chronologically serialize all pages of the tender documents submitted.

12.2 The Tenderer shall furnish in the Form of Tender information on commissions and gratuities, if any, paid or to be paid to agents or any other party relating to this Tender.

13. Alternative Tenders

13.1 Unless otherwise specified in the TDS, alternative Tenders shall not be considered.

13.2 When alternative times for completion are explicitly invited, a statement to that effect will be included in the **TDS**, and the method of evaluating different alternative times for completion will be described in Section III, Evaluation and Qualification Criteria.

13.3 Except as provided under ITT 13.4 below, Tenderers wishing to offer technical alternatives to the requirements of the Tender Documents must first price the Procuring Entity's design as described in the Tender Documents and shall further provide all information necessary for a complete evaluation of the alternative by the Procuring Entity, including drawings, design calculations, technical specifications, breakdown of prices, and proposed construction methodology and other relevant details. Only the technical alternatives, if any, of the Tenderer with the Winning Tender conforming to the basic technical requirements shall be considered by the Procuring Entity.

13.4 When specified in the **TDS**, Tenderers are permitted to submit alternative technical solutions for specified parts of the Works, and such parts will be identified in the **TDS**, as will the method for their evaluating, and described in Section VII, Works' Requirements.

14.0 Tender Prices and Discounts

14.1 The prices and discounts (including any price reduction) quoted by the Tenderer in the Form of Tender and in the Bill of Quantities shall conform to the requirements specified below.

14.2 The Tenderer shall fill in rates and prices for all items of the Works described in the Bill of Quantities. Items against which no rate or price is entered by the Tenderer shall be deemed covered by the rates for other items in the Bill of Quantities and will not be paid for separately by the Procuring Entity. An item not listed in the priced Bill of Quantities shall be assumed to be not included in the Tender, and provided that the Tender is determined substantially responsive notwithstanding this omission, the average price of the item quoted by substantially responsive Tenderers will be added to the Tender price and the equivalent total cost of the Tender so determined will be used for price comparison.

14.3 The price to be quoted in the Form of Tender, in accordance with ITT 12.1, shall be the total price of the Tender, including any discounts offered.

14.4 The Tenderer shall quote any discounts and the methodology for their application in the Form of Tender, in accordance with ITT 12.1.

14.5 It will be specified in the **TDS** if the rates and prices quoted by the Tenderer are or are not subject to adjustment during the performance of the Contract in accordance with the provisions of the Conditions of Contract, except in cases where the contract is subject to fluctuations and adjustments, not fixed price. In such a case, the Tenderer shall furnish the indices and weightings for the price adjustment formulae in the Schedule of Adjustment Data and the Procuring Entity may require the Tenderer to justify its proposed indices and weightings.

14.6 Where tenders are being invited for individual lots (contracts)or for any combination of lots (packages), tenderers wishing to offer discounts for the award of more than one Contract shall specify in their Tender the price reductions applicable to each package, or alternatively, to individual Contracts within the package. Discounts shall be submitted in accordance with ITT 14.4, provided the Tenders for all lots (contracts) are opened at the same time.

14.7 All duties, taxes, and other levies payable by the Contractor under the Contract, or for any other cause, as of the date 30 days prior to the deadline for submission of Tenders, shall be included in the rates and prices and the total Tender Price submitted by the Tenderer.

15.0 Currencies of Tender and Payment

15.1 The currency(ies) of the Tender and the currency(ies) of payments shall be the same**.**

15.2 Tenderers shall quote entirely in Kenya Shillings. The unit rates and the prices shall be quoted by the Tenderer in the Bill of Quantities, entirely in Kenya shillings.

a) A Tenderer expecting to incur expenditures in other currencies for inputs to the Works supplied from outside Kenya (referred to as "the foreign currency requirements") shall (if so allowed in the **TDS**) indicate in the Appendix to Tender the percentage(s) of the Tender Price (excluding Provisional Sums), needed by the Tenderer for the payment of such foreign currency requirements, limited to no more than two foreign currencies.

b) The rates of exchange to be used by the Tenderer in arriving at the local currency equivalent and the percentage(s) mentioned in (a) above shall be specified by the Tenderer in the Appendix to Tender and shall be based on the exchange rate provided by the Central Bank of Kenya on the date 30 days prior to the actual date of tender opening. Such exchange rate shall apply for all foreign payments under the Contract.

15.3 Tenderers may be required by the Procuring Entity to justify, to the Procuring Entity's satisfaction, their local and foreign currency requirements, and to substantiate that the amounts included in the unit rates and prices and shown in the Schedule of Adjustment Data in the Appendix to Tender are reasonable, in which case a detailed break down of the foreign currency requirements shall be provided by Tenderers.

16.0 Documents Comprising the Technical Proposal

The Tenderer shall furnish a technical proposal including a statement of work methods, equipment, personnel, schedule and any other information as stipulated in Section IV, Tender Forms, insufficient detail to demonstrate the adequacy of the Tenderer's proposal to meet the work's requirements and the completion time.

17.0 Documents Establishing the Eligibility and Qualifications of the Tenderer

17.1 Tenderers shall complete the Form of Tender, included in Section IV, Tender Forms, to establish Tenderer's eligibility in accordance with ITT 4.

17.2 In accordance with Section III, Evaluation and Qualification Criteria, to establish its qualifications to perform the Contract the Tenderer shall provide the information requested in the corresponding information sheets included in Section IV, Tender Forms.

17.3 If a margin of preference applies as specified in accordance with ITT 33.1, nation al tenderers, individually or in joint ventures, applying for eligibility for national preference shall supply all information required to satisfy the criteria for eligibility specified in accordance with ITT 33.1.

17.4 Tenderers shall be asked to provide, as part of the data for qualification, such information, including details of ownership, as shall be required to determine whether, according to the classification established by the Procuring Entity, a particular contractor or group of contractors qualifies for a margin of preference. Further the information will enable the Procuring Entity identify any actual or potential conflict of interest in relation to the procurement and/or contract management processes, or a possibility of collusion between tenderers, and thereby help to prevent any corrupt influence in relation to the procurement process or contract management.

17.5 The purpose of the information described **in ITT 17.4** above overrides any claims to confidentiality which a tenderer may have. There can be no circumstances in which it would be justified for a tenderer to keep information relating to its ownership and control confidential where it is tendering to undertake public sector work and receive public sector funds. Thus, confidentiality will not be accepted by the Procuring Entity as a justification for a Tenderer's failure to disclose, or failure to provide required information on its ownership and control.

17.6 The Tenderer shall provide further documentary proof, information or authorizations that the Procuring Entity may request in relation to owner ship and control which in formation on any changes to the information which was provided by the tenderer under ITT 6.4. The obligations to require this information shall continue for the duration of the procurement process and contract performance and after completion of the contract, if any change to the information previously provided may reveal a conflict of interest in relation to the award or management of the contract.

17.7 All information provided by the tenderer pursuant to these requirements must be complete, current and accurate

as at the date of provision to the Procuring Entity. In submitting the information required pursuant to these requirements, the Tenderer shall warrant that the information submitted is complete, current and accurate as at the date of submission to the Procuring Entity.

17.8 If a tenderer fails to submit the information required by these requirements, its tender will be rejected. Similarly, if the Procuring Entity is unable, after taking reasonable steps, to verify to a reasonable degree the information submitted by a tenderer pursuant to these requirements, then the tender will be rejected.

17.9 If information submitted by a tenderer pursuant to these requirements, or obtained by the Procuring Entity (whether through its own enquiries, through notification by the public or otherwise), shows any conflict of interest which could materially and improperly benefit the tenderer in relation to the procurement or contract management process, then:

i) If the procurement process is still ongoing, the tenderer will bed is qualified from the procurement process,

ii) if the contract has been awarded to that tenderer, the contract award will be set as depending on the outcome of (iii),

iii) the tenderer will be referred to the relevant law enforcement authorities for investigation of whether the tenderer or any other person shave committed any criminal offence.

17.10 If a tenderer submits information pursuant to these requirements that is in complete, in accurate or out-of-date, or attempts to obstruct the verification process, then the consequences ITT 17.8 will ensue unless the tenderer can show to the reasonable satisfaction of the Procuring Entity that any such act was not material, or was due to genuine error which was not attributable to the intentional act, negligence or recklessness of the tender.

18.0 Period of Validity of Tenders

18.1. Tenders shall remain valid for the Tender Validity period specified in the **TDS**. The Tender Validity period starts from the date fixed for the Tender submission deadline (as prescribed by the Procuring Entity in accordance with ITT 22). At ender valid for a shorter period shall be rejected by the Procuring Entity as non-responsive.

18.2 In exceptional circumstances, prior to the expiration of the Tender validity period, the Procuring Entity may requestTendererstoextendtheperiodofvalidityoftheirTenders.Therequestandtheresponsesshallbemadein writing. If a Tender Security is requested in accordance with ITT 19, it shall also be extended for thirty (30) days beyond the deadline of the extended validity period. A Tenderer may refuse the request without forfeiting its Tendersecurity.ATenderergrantingtherequestshallnotberequiredorpermittedtomodifyitsTender.

19.0 Tender Security

19.1 The Tenderer shall furnish as part of its Tender, either a Tender-Securing Declaration or a Tender Security as specified in the **TDS**, in original form and, in the case of a Tender Security, in the amount and currency **specified** in the **TDS**. A Tender-Securing Declaration shall use the form included in Section IV, Tender Forms.

19.2 If a Tender Security is specified pursuant to ITT 19.1, the Tender Security shall be a demand guarantee in any of the following forms at the Tenderer's option:

I) cash;

ii) a bank guarantee;

iii) a guarantee by an insurance company registered and licensed by the Insurance Regulatory Authority listed by the Authority;

(iv) a guarantee issued by a financial institution approved and licensed by the Central Bank of Kenya, from a reputable source, and an eligible country.

19.3 If an unconditional bank guarantee is issued by a bank located outside Kenya, the issuing bank shall have a correspondent bank located in Kenya to make it enforceable. The Tender Security shall be valid for thirty (30) days beyond the original validity period of the Tender, or beyond any period of extension if requested under ITT 18.2.

19.4 If a Tender Security or Tender-Securing Declaration is specified pursuant to ITT 19.1, any Tender not accompanied by a substantially responsive Tender Security or Tender-Securing Declaration shall be rejected by the Procuring Entity as non-responsive.

19.5 If a Tender Security is specified pursuant to ITT 19.1, the Tender Security of unsuccessful Tenderers shall be returned as promptly as possible upon the successful Tenderer's signing the Contract and furnishing the Performance Security and any other documents required in the TDS. The Procuring Entity shall also promptly

return the tender security to the tenderers where the procurement proceedings are terminated, all tenders were determined non-responsive or a bidder declines to extend tender validity period.

19.6 The Tender Security of the successful Tenderer shall be returned as promptly as possible once the successful Tenderer has signed the Contract and furnished the required Performance Security, and any other documents required in the TDS.

19.7 The Tender Security may be forfeited or the Tender-Securing Declaration executed:

a) if a Tenderer withdraws its Tender during the period of Tender validity specified by the Tenderer on the Form of Tender, or any extension there to provided by the Tenderer; or

b) if the successful Tenderer fails to: -

i) sign the Contract in accordance with ITT47; or

ii) furnish a Performance Security and if required in the TDS, and any other documents required in the TDS.

19.8 Where tender securing declaration is executed, the Procuring Entity shall recommend to the PPRA to debars the Tenderer from participating in public procurement as provided in the law.

19.9 The Tender Security or the Tender-Securing Declaration of a JV shall be in the name of the JV that submits the Tender. If the JV has not been legally constituted into a legally enforceable JV at the time of tendering, the Tender Security or the Tender-Securing Declaration shall be in the names of all future members as named in the letter of intent referred to in ITT 4.1 and ITT 11.2.

19.10 A tenderer shall not issue a tender security to guarantee itself.

20.0 Format and Signing of Tender

20.1 The Tenderer shall prepare one original of the documents comprising the Tender as described in ITT 11 and clearly mark it "ORIGINAL." Alternative Tenders, if permitted in accordance with ITT 13, shall be clearly marked "ALTERNATIVE." In addition, the Tenderer shall submit copies of the Tender, in the number specified in the **TDS** and clearly mark them "COPY." In the event of any discrepancy between the origin a land the copies, the original shall prevail.

20.2 Tenderers shall mark as "CONFIDENTIAL" all information in their Tenders which is confidential to their business. This may include proprietary information, trade secrets, or commercial or financially sensitive information.

20.3 The original and all copies of the Tender shall be typed or written in indelible ink and shall be signed by a person duly authorized to sign on behalf of the Tenderer. This authorization shall consist of a written confirmation as specified in the **TDS** and shall be attached to the Tender. The name and position held by each person signing the authorization must be typed or printed below the signature. All pages of the Tender where entries or amendments have been made shall be signed or initialed by the person signing the Tender.

20.4 In case the Tenderer is a JV, the Tender shall be signed by an authorized representative of the JV on behalf of the JV, and so as to be legally binding on all the members as evidenced by a power of attorney signed by their legally authorized representatives.

20.5 Any inter-lineation, erasures, or overwriting shall be valid only if they are signed or initialed by the person signing the Tender.

D. SUBMISSION AND OPENING OF TENDERS

21.0 Sealing and Marking of Tenders

21.1 The Tenderer shall deliver the Tender in a single sealed envelope, or in a single sealed package, or in a single sealed container bearing the name and Reference number of the Tender, addressed to the Procuring Entity and a warning not to open before the time and date for Tender opening date. Within the single envelope, package or container, the Tenderer shall place the following separate, sealed envelopes:

a) in an envelope or package or container marked "ORIGINAL", all documents comprising the Tender, as described in ITT 11; and

b) in an envelope or package or container marked "COPIES", all required copies of the Tender; and

c) if alternative Tenders are permitted in accordance with ITT 13, and if relevant:

i) in an envelope or package or container marked "ORIGINAL –ALTERNATIVE TENDER", the alternative Tender; and

ii) in the envelope or package or container marked "COPIES- ALTERNATIVE TENDER", all required copies of the alternative Tender.

The inner envelopes or packages or containers shall:

a) bear the name and address of the Procuring Entity,
b) bear the name and address of the Tenderer; and
c) bear the name and Reference number of the Tender.

21.2 If an envelope or package or container is not sealed and marked as required, the *Procuring Entity* will assume no responsibility for the misplacement or premature opening of the Tender. Tenders misplaced or opened prematurely will not be accepted.

22.0 Deadline for Submission of Tenders

22.1 Tenders must be received by the Procuring Entity at the address specified in the **TDS** and no later than the date and time also specified in the **TDS.** When so specified in the **TDS**, tenderers shall have the option of submitting their Tenders electronically. Tenderers submitting Tenders electronically shall follow the electronic Tender submission procedures specified in the **TDS**.

22.2 The Procuring Entity may, at its discretion, extend the deadline for the submission of Tenders by amending the Tender Documents in accordance with ITT 8, in which case all rights and obligations of the Procuring Entity and Tenderers previously subject to the deadline shall thereafter be subject to the deadline as extended.

23.0 Late Tenders

The Procuring Entity shall not consider any Tender that arrives after the deadline for submission of tenders, in accordance with ITT 22. Any Tender received by the Procuring Entity after the deadline for submission of Tenders shall be declared late, rejected, and returned unopened to the Tenderer.

24.0 Withdrawal, Substitution, and Modification of Tenders

24.1 A Tenderer may withdraw, substitute, or modify its Tender after it has been submitted by sending a written notice, duly signed by an authorized representative, and shall include a copy of the authorization in accordance with ITT 20.3, (except that withdrawal notices do not require copies). The corresponding substitution or modification of the Tender must accompany the respective written notice. All notices must be:

a) prepared and submitted in accordance with ITT 20 and ITT 21 (except that withdrawals notices do not require copies), and in addition, the respective envelopes shall be clearly marked "WITHDRAWAL," "SUBSTITUTION," "MODIFICATION;" and
b) received by the Procuring Entity prior to the deadline prescribed for submission of Tenders, in accordance with ITT 22.

24.2 Tenders requested to be withdrawn in accordance with ITT 24.1 shall be returned unopened to the Tenderers.

24.3 No Tender may be withdrawn, substituted, or modified in the interval between the deadline for submission of Tenders and the expiration of the period of Tender validity specified by the Tenderer on the Form of Tender or any extension thereof.

25. Tender Opening

25.1 Except in the cases specified in ITT 23 and ITT 24.2, the Procuring Entity shall publicly open and read out all Tenders received by the deadline, at the date, time and place specified **in the TDS**, in the presence of Tenderers' designated representatives who chooses to attend. Any specific electronic Tender opening procedures required if electronic Tendering is permitted in accordance with ITT 22.1, shall be as specified in the **TDS.**

25.2 First, envelopes marked "WITHDRAWAL" shall be opened and read out and the envelopes with the corresponding Tender shall not be opened but returned to the Tenderer. No Tender withdrawal shall be permitted unless the corresponding withdrawal notice contains a valid authorization to request the withdrawal and is read out at Tender opening.

25.3 Next, envelopes marked "SUBSTITUTION" shall be opened and read out and exchanged with the corresponding Tender being substituted, and the substituted Tender shall not be opened, but returned to the

Tenderer. No Tender substitution shall be permitted unless the corresponding substitution notice contains a valid authorization to request the substitution and is read out at Tender opening.

25.4 Next, envelopes marked "MODIFICATION" shall be opened and read out with the corresponding Tender. No Tender modification shall be permitted unless the corresponding modification notice contains a valid authorizationtorequestthemodificationandisreadoutatTenderopening.

25.5 Next, all remaining envelopes shall be opened one at a time, reading out: the name of the Tenderer and whether there is a modification; the total Tender Price, per lot (contract) if applicable, including any discounts and alternative Tenders; the presence or absence of a Tender Security or Tender-Securing Declaration, if required; and any other details as the Procuring Entity may consider appropriate.

25.6 Only Tenders, alternative Tenders and discounts that are opened and read out at Tender opening shall be considered further for evaluation. The Form of Tender and pages of the Bill of Quantities (to be decided on by the tender opening committee) are to be initialed by the members of the tender opening committee attending the opening.

25.7 At the Tender Opening, the Procuring Entity shall neither discuss the merits of any Tender nor reject any Tender (except for late Tenders, in accordance with ITT 23.1).

25.8 The Procuring Entity shall prepare minutes of the Tender Opening that shall include, as a minimum: -

a) the name of the Tenderer and whether there is a withdrawal, substitution, or modification;
b) the Tender Price, per lot (contract) if applicable, including any discounts;
c) any alternative Tenders;
d) the presence or absence of a Tender Security, if new as required;
e) number of pages of each tender document submitted.

25.9 The Tenderers' representatives who are present shall be requested to sign the minutes. The omission of a Tenderer's signature on the minutes shall not invalidate the contents and effect of the minutes. A copy of the tender opening register shall be distributed to all Tenderers.

E. EVALUATION AND COMPARISON OF TENDERS

26. Confidentiality

26.1 Information relating to the evaluation of Tenders and recommendation of contract award shall not be disclosed to Tenderers or any other persons not officially concerned with the Tender process until information on Intention to Award the Contract is transmitted to all Tenderers in accordance with ITT 43.

26.2 Any effort by a Tenderer to influence the Procuring Entity in the evaluation of the Tenders or Contract award decisions may result in the rejection of its tender.

26.3 Notwithstanding ITT 26.2, from the time of tender opening to the time of contract award, if a tenderer wishes to contact the Procuring Entity on any matter related to the tendering process, it shall do so in writing.

27.0 Clarification of Tenders

27.1 To assist in the examination, evaluation, and comparison of the tenders, and qualification of the tenderers, the Procuring Entity may, at its discretion, ask any tenderer for a clarification of its tender, given a reasonable time for a response. Any clarification submitted by a tenderer that is not in response to a request by the Procuring Entity shall not be considered. The Procuring Entity's request for clarification and the response shall be in writing. No change, including any voluntary increase or decrease, in the prices or substance of the tender shall be sought, offered, or permitted, except to confirm the correction of arithmetic errors discovered by the Procuring Entity in the evaluation of the tenders, in accordance with ITT 31.

27.2 If a tenderer does not provide clarifications of its tender by the date and time set in the Procuring Entity's request for clarification, its Tender may be rejected.

28.0 Deviations, Reservations, and Omissions

28.1 During the evaluation of tenders, the following definitions apply: -

a) *"Deviation"* is a departure from the requirements specified in the tender document;

b) *"Reservation"* is the setting of limiting conditions or withholding from complete acceptance of the requirements specified in the tender document; and
c) *"Omission"* is the failure to submit part or all of the information or documentation required in the Tender document.

29.0 Determination of Responsiveness

29.1 The Procuring Entity's determination of a Tender's responsiveness is to be based on the contents of the tender itself, as defined in ITT 11.

29.2 A substantially responsive Tender is one that meets the requirements of the Tender document without material deviation, reservation, or omission. A material deviation, reservation, or omission is one that, if accepted, would:
a) Affecting any substantial way, the scope, quality, or performance of the Works specified in the Contract;
b) limit in any substantial way, inconsistent with the tender document, the Procuring Entity's rights or the tenderer's obligations under the proposed contract;
c) if rectified, would unfairly affect the competitive position of other tenderers presenting substantially responsive tenders.

29.3 The Procuring Entity shall examine the technical aspects of the tender submitted in accordance with ITT 16, to confirm that all requirements of Section VII, Works' Requirements have been met without any material deviation, reservation or omission.

29.4 If a tender is not substantially responsive to the requirements of the tender document, it shall be rejected by the Procuring Entity and may not subsequently be made responsive by correction of the material deviation, reservation, or omission.

30.0 Non-material non-conformities

30.1 Provided that a tender is substantially responsive, the Procuring Entity may waive any non-conformities in the tender.

30.2 Provided that a Tender is substantially responsive, the Procuring Entity may request that the tenderer submit the necessary information or documentation, within a reasonable period of time, to rectify non-material non-conformities in the tender related to documentation requirements. Requesting information or documentation on such non-conformities shall not be related to any aspect of the price of the tender. Failure of the tenderer to comply with the request may result in the rejection of its tender.

30.3 Provided that a tender is substantially responsive, the Procuring Entity shall rectify quantifiable non-material non-conformities related to the Tender Price. To this effect, the Tender Price shall be adjusted, for comparison purposes only, to reflect the price of a missing or non-conforming item or component in the manner specified **in the TDS.**

31.0 Arithmetical Errors

31.1 The tender sum as submitted and read out during the tender opening shall be absolute and final and shall not be the subject of correction, adjustment or amendment in any way by any person or entity.

31.2 Provided that the Tender is substantially responsive, the Procuring Entity shall handle errors on the following basis: -
a) Any error detected if considered a major deviation that affects the substance of the tender, shall lead to disqualification of the tender as non-responsive.
b) Any errors in the submitted tender arising from a miscalculation of unit price, quantity, subtotal and total bid price shall be considered as a major deviation that affects the substance of the tender and shall lead to disqualification of the tender as non-responsive. and
c) if there is a discrepancy between words and figures, the amount in words shall prevail

31.3 Tenderers shall be notified of any error detected in their bid during the notification of award.

32.0 Conversion to Single Currency

For evaluation and comparison purposes, the currency(ies) of the Tender shall be converted in to a single

currency as specified in the **TDS**.

33.0 Margin of Preference and Reservations

33.1 A margin of preference may be allowed only when the contract is open to international competitive tendering where foreign contractors are expected to participate in the tendering process and where the contract exceeds the value/threshold specified in the Regulations.

33.2 A margin of preference shall not be allowed unless it is specified so in the **TDS**.

33.3 Contracts procured on basis of international competitive tendering shall not be subject to reservations exclusive to specific groups as provided in ITT 33.4.

33.4 Where it is intended to reserve a contract to a specific group of businesses (these groups are Small and Medium Enterprises, Women Enterprises, Youth Enterprises and Enterprises of persons living with disability, as the case may be), and who are appropriately registered as such by the authority to be specified in the **TDS**, a procuring entity shall ensure that the invitation to tender specifically indicates that only businesses or firms belonging to the specified group are eligible to tender. No tender shall be reserved to more than one group. If not so stated in the Invitation to Tender and in the Tender documents, the invitation to tender will be open to all interested tenderers.

34.0 Nominated Subcontractors

34.1 Unless otherwise stated in the **TDS,** the Procuring Entity does not intend to execute any specific elements of the Works by subcontractors selected/nominated by the Procuring Entity. In case the Procuring Entity nominates a subcontractor, the subcontract agreement shall be signed by the Subcontractor and the Procuring Entity. The main contract shall specify the working arrangements between the main contractor and the nominated subcontractor.

34.2 Tenderers may propose sub-contracting up to the percentage of total value of contracts or the volume of works as specified in the **TDS**. Subcontractors proposed by the Tenderer shall be fully qualified for their parts of the Works.

34.3 Domestic subcontractor's qualifications shall not be used by the Tenderer to qualify for the Works unless their specialized parts of the Works were previously designated so by the Procuring Entity in the **TDS** a scan be met by subcontractors referred to hereafter as 'Specialized Subcontractors', in which case, the qualifications of the Specialized Subcontractors proposed by the Tenderer may be added to the qualifications of the Tenderer.

35. Evaluation of Tenders

35.1 The Procuring Entity shall use the criteria and methodologies listed in this ITT and Section III, Evaluation and Qualification Criteria No other evaluation criteria or methodologies shall be permitted. By applying the criteria and methodologies the Procuring Entity shall determine the Lowest Evaluated Tender in accordance with ITT 40.

35.2 To evaluate a Tender, the Procuring Entity shall consider the following:

a) Price adjustment in accordance with ITT 31.1 (iii); excluding provisional sums and contingencies, if any, but including Daywork items, where priced competitively;

b) price adjustment due to discounts offered in accordance with ITT 14.4;

c) converting the amount resulting from applying (a) and (b) above, if relevant, to a single currency in accordance with ITT 32;

d) price adjustment due to quantifiable non material non-conformities in accordance with ITT 30.3; and

e) any additional evaluation factors specified in the **TDS** and Section III, Evaluation and Qualification Criteria.

35.3 The estimated effect of the price adjustment provisions of the Conditions of Contract, applied over the period of execution of the Contract, shall not be considered in Tender evaluation.

35.4 Where the tender involves multiple lots or contracts, the tenderer will be allowed to tender for one or more lots (contracts). Each lot or contract will be evaluated in accordance with ITT 35.2. The methodology to determine the lowest evaluated tenderer or tenderers base done lot (contract) or based on a combination of lots (contracts), will be specified in Section III, Evaluation and Qualification Criteria. In the case of multiple lots or contracts, tenderer will be required to prepare the Eligibility and Qualification Criteria Form for each Lot.

36.0 Comparison of tenders

The Procuring Entity shall compare the evaluated costs of all substantially responsive Tenders established in accordance with ITT 35.2 to determine the Tender that has the lowest evaluated cost.

37.0 Abnormally low tenders and abnormally high tenders

Abnormally Low Tenders

37.1 An Abnormally Low Tender is one where the Tender price, in combination with other elements of the Tender, appears so low that it raises material concerns as to the capability of the Tenderer in regard to the Tenderer's ability to perform the Contract for the offered Tender Price or that genuine competition between Tenderersis compromised.

37.2 In the event of identification of a potentially Abnormally Low Tender, the Procuring Entity shall seek written clarifications from the Tenderer, including detailed price analyses of its Tender price in relation to the subject matter of the contract, scope, proposed methodology, schedule, allocation of risks and responsibilities and any other requirements of the Tender document.

37.3 After evaluation of the price analyses, in the event that the Procuring Entity determines that the Tenderer has failed to demonstrate its capability to perform the Contract for the offered Tender Price, the Procuring Entity shall reject the Tender.

Abnormally high tenders

37.4 An abnormally high tender price is one where the tender price, in combination with other constituent elements of the Tender, appears unreasonably too high to the extent that the Procuring Entity is concerned that it (the Procuring Entity) may not be getting value for money or it may be paying too high a price for the contract compared with market prices or that genuine competition between Tenderers is compromised.

37.5 Incase of a nab normally high price, the Procuring Entity shall make a survey of the market prices, check if the estimated cost of the contract is correct and review the Tender Documents to check if the specifications, scope of work and conditions of contract are contributory to the abnormally high tenders. The Procuring Entity may also seek written clarification from the tenderer on the reason for the high tender price. The Procuring Entity shall proceed as follows:

i) If the tender price is abnormally high based on wrong estimated cost of the contract, the Procuring Entity may accept or not a ccept the tender depending on the Procuring Entity's budget considerations.

ii) If specifications, scope of work and/or conditions of contract are contributory to the abnormally high tender prices, the Procuring Entity shall reject all tenders and may retender for the contract based on revised estimates, specifications, scope of work and conditions of contract, as the case may be.

37.6 If the Procuring Entity determines that the Tender Price is abnormally too high because genuine competition between tenderers is compromised (*often due to collusion, corruption or other manipulations*), the Procuring Entity shall reject all Tenders and shall institute or cause competent Government Agencies to institute an investigation on the cause of the compromise, before retendering.

38.0 Unbalanced and/ or front-loaded tenders

38.1 If in the Procuring Entity's opinion, the Tender that is evaluated as the lowest evaluated price is seriously unbalanced and/or frontloaded, the Procuring Entity may require the Tenderer to provide written clarifications. Clarifications may include detailed price analyses to demonstrate the consistency of the tender prices with the scope of works, proposed methodology, schedule and any other requirements of the Tender document.

38.2 After the evaluation of the information and detailed price analyses presented by the Tenderer, the Procuring Entity may as appropriate:

a) accept the Tender;

b) require that the total amount of the Performance Security be increased at the expense of the Tenderer to a level not exceeding a 30% of the Contract Price;

c) agree on a payment mode that eliminates the inherent risk of the Procuring Entity paying too much for undelivered works;

d) reject the Tender,

39.0 Qualifications of the tenderer

39.1 The Procuring Entity shall determine to its satisfaction whether the eligible Tenderer that is selected as having submitted the lowest evaluated cost and substantially responsive Tender, meets the qualifying criteria specified in Section III, Evaluation and Qualification Criteria.

39.2 The determination shall be based upon an examination of the documentary evidence of the Tenderer's qualifications submitted by the Tenderer, pursuant to ITT 17. The determination shall not take into consideration the qualifications of other firms such as the Tenderer's subsidiaries, parent entities, affiliates, subcontractors (other than Specialized Sub-contractors if permitted in the Tender document), or any other firm(s) different from the Tenderer.

39.3 An affirmative determination shall be a prerequisite for award of the Contract to the Tenderer. A negative determination shall result in disqualification of the Tender, in which event the Procuring Entity shall proceed to the Tenderer who offers a substantially responsive Tender with the next lowest evaluated price to make a similar determination of that Tenderer's qualifications to perform satisfactorily.

40.0 Lowest evaluated tender

Having compared the evaluated prices of Tenders, the Procuring Entity shall determine the Lowest Evaluated Tender. The Lowest Evaluated Tender is the Tender of the Tenderer that meets the Qualification Criteria and whose Tender has been determined to be:

a) Most responsive to the Tender document; and
b) the lowest evaluated price.

41.0 Procuring entity's right to accept any tender, and to reject any or all tenders.

The Procuring Entity reserves the right to accept or reject any Tender and to annul the Tender process and reject all Tenders at any time prior to Contract Award, without there by incurring any liability to Tenderers. Incase of annulment, all Tenders submitted and specifically, Tender securities, shall be promptly returned to the Tenderers.

F. AWARD OF CONTRACT

42.0 Award criteria

The Procuring Entity shall award the Contract to the successful tenderer whose tender has been determined to be the Lowest Evaluated Tender.

43.0 Notice of Intention to Enter into a Contract/Notification of Award

Upon award of the contract and prior to the expiry of the Tender Validity Period the Procuring Entity shall issue a Notification of Intention to Enter into a Contract/Notification of award to all tenderers which shall contain, at a minimum, the following information:

a) the name and address of the Tenderer submitting the successful tender;
b) the Contract price of the successful tender;
c) a statement of the reason(s) the tender of the unsuccessful tenderer to whom the letter is addressed was unsuccessful, unless the price information in (c) above already reveals the reason;
d) the expiry date of the Standstill Period; and
e) instruction son how to request a debriefing and/ or submit a complaint during the stand still period;

44.0 Stand still period

44.1 The Contract shall not be signed earlier than the expiry of a Standstill Period of 14 days to allow any dissatisfied tender to launch a complaint. Where only one Tender is submitted, the Standstill Period shall not apply.

44.2 Where a Standstill Period applies, it shall commence when the Procuring Entity has transmitted to each Tenderer the Notification of Intention to Enter into a Contract with the successful Tenderer.

45.0 Debriefing by The Procuring Entity

45.1 On receipt of the Procuring Entity's Notification of Intention to Enter into a Contract referred to in ITT 43, an unsuccessful tenderer may make a written request to the Procuring Entity for a debriefing on specific issues or concerns regarding their tender. The Procuring Entity shall provide the debriefing within five days of receipt of the request.

45.2 Debriefings of unsuccessful Tenderers may be done in writing or verbally. The Tenderer shall bear its own costs of attending such a debriefing meeting.

46.0 Letter of Award

Prior to the expiry of the Tender Validity Period and upon expiry of the Standstill Period specified in ITT 42.1, upon addressing a complaint that has been filed with in the Standstill Period, the Procuring Entity shall transmit the Letter of Award to the successful Tenderer. The letter of award shall request the successful tenderer to furnish the Performance Security within 21 days of the date of the letter.

47.0 Signing of Contract

47.1 Upon the expiry of the fourteen days of the Notification of Intention to enter in to contract and upon the parties meeting their respective statutory requirements, the Procuring Entity shall send the successful Tenderer the Contract Agreement.

47.2 Within fourteen (14) days of receipt of the Contract Agreement, the successful Tenderer shall sign, date, and return it to the Procuring Entity.

47.3 The written contract shall be entered into within the period specified in the notification of award and before expiry of the tender validity period.

48.0 Performance Security

48.1 Within twenty-one (21) days of the receipt of the Letter of Award from the Procuring Entity, the successful Tenderer shall furnish the Performance Security and, any other documents required in the **TDS**, in accordance with the General Conditions of Contract, subject to ITT 38.2 (b), using the Performance Security and other Forms included in Section X, Contract Forms, or another form acceptable to the Procuring Entity. A foreign institution providing a bank guarantee shall have a correspondent financial institution located in Kenya, unless the Procuring Entity has agreed in writing that a correspondent bank is not required.

48.2 Failure of the successful Tenderer to submit the above-mentioned Performance Security and otherdocuments required in the **TDS** or sign the Contract shall constitute sufficient grounds for the annulment of the award and forfeiture of the Tender Security. In that event the Procuring Entity may award the Contract to the Tenderer offering the next Best Evaluated Tender.

48.3 Performance security shall not be required for contracts estimated to cost less than the amount specified inthe Regulations.

49.0 Publication of Procurement Contract

Within fourteen days after signing the contract, the Procuring Entity shall publish the awarded contract at its notice boards and websites; and on the Website of the Authority. At the minimum, the notice shall contain the following information:

a) name and address of the Procuring Entity;
b) name and reference number of the contract being awarded, a summary of its scope and the selection method used;
c) the name of the successful Tenderer, the final total contract price, the contract duration;
d) dates of signature, commencement and completion of contract;
e) names of all Tenderers that submitted Tenders, and their Tender prices as readout at Tender opening.

50.0 Procurement related Complaints and Administrative Review

50.1 The procedures for making Procurement-related Complaints are as specified in the **TDS.**

50.2 A request for administrative review shall be made in the form provided under contract forms.

Section II - Tender Data Sheet (TDS)

The following specific data shall complement, supplement, or amend the provisions in the Instructions to Tenderers (ITT). Whenever there is a conflict, the provisions herein shall prevail over those in ITT.

Reference to ITC Clause	PARTICULARS OF APPENDIX TO INSTRUCTIONS TO TENDERS
A. General	
ITT 1.1	The name of the contract is **: PROPOSED CONSTRUCTION OF THE UTALII COLLEGE STUDENT VILLAGE ACCOMMODATION IN NAIROBI COUNTY(WITH ASSOCIATED INFRASTRUCTURE AND AMENITIES), MATHARE CONSTITUENCY, NAIROBI COUNTY** The reference number of the Contract is: **TENDER No.: MLPWHUD/SDHUD/AHP/497/2024-2025**
ITT 2.4	The Information made available on competing firms is as follows: N/A
ITT 2.4	The firms that provided consulting services for the contract being tendered for are: N/A
ITT 3.1	Maximum number of members in the Joint Venture (JV) shall be: **Two**
B. Contents of Tender Document	
ITT 7.1	The Tenderer will submit any request for clarifications in writing at the Address: (1) Name of Procuring Entity: **State Department for Housing and Urban Development** (2) Physical address for hand Courier Delivery to an office: **1st Ngong avenue, Ardhi House, 6th Floor, Wing B, Room 606** (3) Postal Address; **P.O. Box 30119-00100 Nairobi** (4) Officer to be contacted: **Head, Supply Chain Management Services** **Email: *procurement@housingandurban.go.ke***
ITT 7.2	A pre-arranged meeting / pretender site visit **shall not** take place at the following date, time and place: Date: __N/A Time: N/A Place: N/A Pre-Tender meeting **shall not** take place at the following date, time and place: **Date: _N/A** **Time: N/A** **Place: N/A**
ITT 7.3	The Tenderer will submit any questions in writing, to reach the Procuring Entity not later than **2 Days** before the meeting.
ITT 7.5	The Procuring Entity's website where Minutes of the pre-Tender meeting and the pre-arranged pretender will be published is *https://housingandurban.go.ke/tenders/*

Reference to ITC Clause	PARTICULARS OF APPENDIX TO INSTRUCTIONS TO TENDERS
ITT 9.1	For Clarification of Tender purposes, for obtaining further information and for purchasing tender documents, the Procuring Entity's address is: (1) Name of Procuring Entity: **State Department for Housing and Urban Development** (2) Physical address for hand Courier Delivery to an office: **1st Ngong avenue, Ardhi House, 6th Floor, Wing B, Room 606** (3) Postal Address; **P.O. Box 30119-00100 Nairobi** (4) Officer to be contacted: **Head, Supply Chain Management Services** **Email: *procurement@housingandurban.go.ke***
C. Preparation of Tenders	
ITT 11.1 (h)	The Tenderer shall submit the following additional documents in its Tender (In addition to those described under ITT 11.1 (a) to (g)): 1. Certified copy of Registration certificate from National Construction Authority, Category NCA 2 and above in Building works (General Building Contractor), and the current Practicing License. (For Kenyan Contractors, the required level of registration is NCA, Category 2, Building Works with Kenyan National Construction Authority. All other (main/ prime contractors) outside Kenya must have a registration or certification, in their respective country that is demonstrably equivalent to Kenya's NCA, Category 2. Contractors must visit the NCA website to self-assess their registration level and provide sufficient detail to demonstrate the equivalence of their registration/certification to NCA, Category 2) The documents should be submitted in/ translated to the English language and notarized by a notaries public. 2. Bank statements for the last six months to be provided. Statements to be certified by the bank 3. Certified Copy of Company Registration/Incorporation Certificates and certified by commissioner for oaths. (For Main Contractor and Domestic Sub-Contractors) 4. Certified copy of Valid Tax Compliance Certificate. (For Main Contractor Only) 5. A copy of company's list of directors, beneficial owners, name of proprietor or names of partners (Copy of CR12 / CR13) issued within the last one year and showing the list of directors and certified by commissioner for oaths (For Main Contractor Only)

Reference to ITC Clause	PARTICULARS OF APPENDIX TO INSTRUCTIONS TO TENDERS
	The Bidder is required to be registered by the authorities listed below and provide the relevant documentation. If not, the bidder shall provide the listed Domestic Sub-Contractors and provide the relevant applicable documents showing their qualification: i) Builders Works a) Valid NCA category 2 Registration and Practicing Licence ii.) Electrical Installations Sub-contractor b) Company Certificate of Incorporation c) Valid NCA Category 4 Registration and Practicing Licence d) EPRA Electrical Contractor License Class B iii.) Mechanical Plumbing, Drainage Installations Sub-contractor a) Company Certificate of Incorporation b) Valid NCA Category 4 Registration and Practicing Licence c) Plumber's License d) Drain-Layer's License
ITT 13.1	Alternative Tenders **shall not be** considered.
ITT 13.2	Alternative times for completion **shall not be** permitted. (For Alternative Tenders)
ITT 13.4	Alternative technical solutions shall not be permitted for the following parts of the Works.
ITT 14.5	The prices quoted by the Tenderer shall be **Fixed**
ITT 15.2 (a)	Foreign currency requirements **not allowed**
ITT 18.1	The Tender validity period shall be **150 days**
ITT 18.3	(a) The Number of days beyond the expiry of the initial tender validity period will be **30 days**. (b) The Tender price shall be adjusted by the following percentages of the tender price: (i) By ____**N/A**_____% of t*he local currency portion of the Contract price adjusted to reflect local inflation during the period of extension,* *and* *(ii) By*_____ **N/A** _____*% the foreign currency portion of the Contract price adjusted to reflect the international inflation during the period of extension.*
ITT 19.1	Tenderer shall provide **a Tender Security** Tender Security shall be required, the amount and currency of the Tender Security shall be **Kenya Shillings Two Million, Five Hundred Thousand (Ksh 2,500,000) issued by a Reputable Financial Institution Valid for a period of 180 days from the tender opening date. The format to match the provided Form; "FORM OF TENDER SECURITY- [Option 1–Demand Bank Guarantee]"**
ITT 20.1	In addition to the original of the Tender, the number of copies is: **One soft copy in PDF which is a replica of the original bid document submitted. This instruction is issued pursuant to Section 74(i)(j) of the Public Procurement and Assets Disposal Act, 2015.** **The tenderer shall return a priced copy of the Bills of Quantities in scanned PDF format as provided in a compact disc or Flash disk together with the scanned PDF. The PDF must be a true copy original and the priced part of the PDF bidding document. No alterations should be made to the descriptions and quantities in the PDF BQ.**
ITT 20.3	The written confirmation of authorization to sign on behalf of the Tenderer shall consist of: **Notarized or Certified Power of Attorney and Board Resolution/s allowing the signatory to submit the bid, negotiate, and possibly execute the Project Agreement on behalf of the Bidder's Company**

Reference to ITC Clause	PARTICULARS OF APPENDIX TO INSTRUCTIONS TO TENDERS
D. Submission and Opening of Tenders	
ITT 22.1	(A) For Tender submission purposes only, the Procuring Entity's address is: Name of Procuring Entity: **State Department for Housing and Urban Development** Postal Address: **Principal Secretary, State Department for Housing and Urban Development P.O. Box 30119-00100 Nairobi** Attention: **Head, Supply Chain Management Services** Physical address for hand Courier Delivery: **1st Ngong avenue, Ardhi House, 6th Floor, Tender Box** Date and time for submission of Tenders: **10th April 2025 at 9:00 am** Tenders **shall not submit** tenders electronically.
ITT 25.1	The Tender opening shall take place at the time and the address for Opening of Tenders provided below: Name of Procuring Entity: **State Department for Housing and Urban Development** Physical address for the location: **1st Ngong avenue, Ardhi House, 6th Floor** State date and time of tender opening: **10th April 2025 at 9:00 am**
ITT 25.1	If Tenderers are allowed to submit Tenders electronically, they shall follow the electronic tender submission procedures **specified below** *[insert a description of the electronic Tender opening procedures]***:** **_____N/A_____** **_____**
E. Evaluation, and Comparison of Tenders	
ITT 30.3	The adjustment shall be based on the **Average** price of the item or component as quoted in other substantially responsive Tenders. If the price of the item or component cannot be derived from the price of other substantially responsive Tenders, the Procuring Entity shall use its best estimate.
TT 32.1	The currency that shall be used for Tender evaluation and comparison purposes only to convert at the selling exchange rate all Tender prices expressed in various currencies into a single currency is: **Kenya Shillings** The source of exchange rate shall be: **The Central bank of Kenya** (mean rate) The date for the exchange rate shall be: **the deadline date for Submission of the Tenders.**
ITT 33.2	A margin of preference **shall not** apply.
ITT 33.4	The invitation to tender is extended to the following group that qualify for Reservations **_____N/A_____** _____
ITT 34.1	At this time, the Procuring Entity intends to execute certain specific parts of the Works by subcontractors selected in advance. 1. Lift Installations works 2. Civil Works 3. Carpentry and Joinery 4. Painting 5. Landscaping 6. Tiling

Reference to ITC Clause	PARTICULARS OF APPENDIX TO INSTRUCTIONS TO TENDERS
ITT 34.2	Contractor's may propose subcontracting: Maximum percentage of subcontracting permitted is: *25% of the total contract amount.* Tenderers planning to subcontract more than 10% of total volume of work shall specify, in the Form of Tender, the activity(ies) or parts of the Works to be subcontracted along with complete details of the subcontractors and their qualification and experience.
ITT 34.3	The parts of the Works for which the Procuring Entity permits Tenderers to propose Specialized Subcontractors are designated as follows: 1. Electrical Works 2. Plumbing and Mechanical Works
ITT 35.2 (e)	Additional requirements apply; 1) Additional requirements are detailed in the evaluation criteria in Section III, Evaluation and Qualification Criteria.
ITT 48.1	Other documents required in addition to the Performance Security are; ***1) Works Programme*** ***2) Cash Flow Projections***
ITT 50.1	The procedures for making a Procurement-related Complaint are detailed in the "Notice of Intention to Award the Contract" herein and are also available from the PPRA Website www.ppra.go.ke or email complaints@ppra.go.ke. If a Tenderer wishes to make a Procurement-related Complaint, the Tenderer should submit its complaint following these procedures, in writing (by the quickest means available, that is either by hand delivery or email to: Director General, Public Procurement Regulatory Authority, KISM Towers, 6th Floor, Ngong Road, P.O BOX 58535-00200 Nairobi Kenya. Procuring Entity: **State Department for Housing and Urban Development** Email address*:* ***procurement@housingandurban.go.ke*** In summary, a Procurement-related Complaint may challenge any of the following (among others): (i) the terms of the Tender Documents; and (ii) the Procuring Entity's decision to award the contract.

SECTION III - EVALUATION AND QUALIFICATION CRITERIA

1.0 GENERAL PROVISIONS

1.1 This section contains the criteria that the Employer shall use to evaluate tender and qualify tenderers. No other factors, methods or criteria shall be used other than specified in this tender document. The Tenderer shall provide all the information requested in the forms included in Section IV, Tendering Forms. The Procuring Entity shall use **the Standard Tender Evaluation Document for Goods and Works** for evaluating Tenders.

1.2 Wherever a Tenderer is required to state a monetary amount, Tenderers should indicate the Kenya Shilling equivalent using the rate of exchange determined as follows:

a) For construction turnover or financial data required for each year - Exchange rate prevailing on the last day of the respective calendar year (in which the amounts for that year is to be converted) was originally established.

b) Value of single contract - Exchange rate prevailing on the date of the contract signature.

(c) Exchange rates shall be taken from the publicly available source identified in the ITT 14.3. Any error in determining the exchange rates in the Tender may be corrected by the Procuring Entity.

1.3 EVALUATION AND CONTRACT AWARD CRITERIA

The Procuring Entity shall use the criteria and methodologies listed in this Section to evaluate tenders and arrive at the Lowest Evaluated Tender. The tender that(i) meets the qualification criteria, (ii) has been determined to be substantially responsive to the Tender Documents, and (iii) is determined to have the Lowest Evaluated Tender price shall be selected for award of contract.

2.0 PRELIMINARY EXAMINATION FOR DETERMINATION OF RESPONSIVENESS

Preliminary examination for Determination of Responsiveness

The Procuring Entity will start by examining all tenders to ensure they meet in all respects the eligibility criteria and other mandatory requirements in the ITT, and that the tender is complete in all aspects in meeting the requirements provided for in the preliminary evaluation criteria outlined below. The Standard Tender Evaluation Report Document for Goods and Works for evaluating Tenders provides very clear guide on how to deal with review of these requirements. Tenders that do not pass the Preliminary Examination will be considered non- responsive and will not be considered further.

The following mandatory requirements shall be used for determination of Responsiveness at the preliminary evaluation.

A. Preliminary and Mandatory Requirements Checklist

S/No	PRELIMINARY EVALUATION CRITERIA / MANDATORY REQUIREMENTS FOR MAIN CONTRACTOR
MR1	Original Tender document must be Tape bound / Permanently bound (Such binding shall permanently hold together all pages along the long edge of the tender document) and submitted alongside a Soft Copy (PDF) as per TDS 20.1. Tender documents submitted as spiral bound or in a box file **shall automatically be disqualified**. In addition, the documents must be chronologically serialized on all pages and attachments.
MR2	**Form of Tender in the company Letter head duly Completed, Signed and Stamped** by the Tenderer in the format provided, and prepared in accordance with ITT 12 and ITT 14
MR3	A Tender Security **shall be** required. The said Tender Security shall be **Kenya Shillings Two Million, Five Hundred Thousand (2,500,000.00) issued by a Reputable Financial Institution Valid for a period of 180 days from the tender opening date. The format to match the provided Form; "FORM OF TENDER SECURITY- [Option 1–Demand Bank Guarantee]"**
MR4	Certified copy of Registration certificate from National Construction Authority, Category NCA2 and above in Building works (General Building Contractor), and the current Practicing License. (For Kenyan Contractors, the required level of registration is NCA, Category 2, Building Works with

	Kenyan National Construction Authority. All other (main/ prime contractors) outside Kenya must have a registration or certification, in their respective country that is demonstrably equivalent to Kenya's NCA, Category 2 Contractors must visit the NCA website to self-assess their registration level and provide sufficient detail to demonstrate the equivalence of their registration/certification to NCA, Category 2) The documents should be submitted in/ translated to the English language and notarized by a notaries public.
MR5	Provide Written Form of Power Attorney for authorizing signatory of the bidder, signed by Commissioner for Oaths.
MR6	Certified Copy of Company Registration / Incorporation Certificates certified by Commissioner of oaths. (For Main Contractor)
MR7	Certified copy of Valid Tax Compliance Certificate, (For Main Contractor Only). Tax Compliance Certificates with "Invalid" or "Withdrawn" status shall result to automatic disqualification**.**
MR8	Duly filled, signed and stamped Confidential Business Questionnaire as per enclosed format. In case of a joint venture all parties must submit a valid confidential business questionnaire as per attached format; (Main Contractor Only)
MR9	A copy of company's list of directors, beneficial owners, National Identity Card(s) for Sole Proprietorship/Partnership; (Copy of CR12 / CR13) issued within the last 12 months and showing the list of directors certified by commissioner for oaths. (Main Contractor Only)
MR10	All Documents must be in English. Documents in Foreign Language must be translated and notarized
MR11	**NB: Bidders who do not meet all of the above requirements shall be considered non-responsive and their tenders will not be evaluated further.** **In case of Joint Ventures (JVs), Parties must provide the documents. Joint Ventures to provide Power of Attorney and intent letter to enter Joint Venture.** **For copies of Original Documents to be accepted as valid, they must be certified by a commissioner of oath. The Bidder must attach a valid annual practicing license and active email address for commissioner of oaths.**

STAGE 2: TECHNICAL EVALUATION CRITERIA FOR THE BIDDERS

B. Detailed Technical Examination

After the Preliminary Examination, the Procuring Entity shall conduct a Detailed Technical Evaluation on the responsive tenders to ensure they meet the technical requirements provided for in the Detailed Technical Evaluation criteria outlined below. Points shall be awarded as follows: -

No	Parameter	Maximum Points
1	Key Personnel	10
2	General Experience	5
3	Specific Construction Experience	15
4	Schedules of Contractor's equipment	10
5	Audited Financial Report for the last 3 years	15
6	Evidence of Financial Resources	25
7	Provision of calculations for Debt Profile: EBITDA / Interest (x times) from the audited financial states for the last three (3) years	5
8	Detailed Works Program and Methodology	5
9	Subcontractor's documentation and experience	10
Total		**100**

Tenders that do not meet the minimum required points of **70 points** in the Detailed Technical Evaluation will be considered non- responsive and will not be considered further.

Item	Description	Points Scored	Max. Points
1	**Key Personnel as detailed here under** **NB: Attach Curriculum Vitae and certificates**		**10**
	Project Manager for the firm • With relevant qualifications; qualification (1 mk) and registration (1 mk) - **Total** (**2 mks)** • With over 5 years' experience in similar works (**2 mks**) • With over 10 years' general experience (**2 mk**) • With experience below the requirements (**0 mks)**		**6**
	Site Agent with the relevant Qualifications • With relevant qualifications; - **Total** (**1 mk)** • With over 5 years' experience in similar works (**2 mk**) • With over 10 years' general experience (**1 mk**) • With experience below the requirements (**0 mks)**		**4**
2.	**General Experience** • Has been practicing as a Contractor for the last 10 years. **(0.5 mk per year)**		**5**
3.	**Specific Experience in Highrise Residential & Commercial Developments (3 No. Projects)** **Attach Letter of Award/Contract and Certificates of Completion for EACH project. A bidder who fails to provide this requirement shall NOT be scored.** • Cumulative Projects value **of Kshs [490 Million] 490,000,000.00** and above undertaken within the last 5 Years **- 15 marks** • Cumulative Projects value **(Between Kshs[245 Million] 245,000,000.00 And Kshs [490 Million] 490,000,000.00) - (7 Marks)** • Has not demonstrated/given evidence of specific experience **or has cumulative project value of Kshs[245 Million] 245,000,000.00 (0 points)**		**15**

Item	Description	Points Scored	Max. Points
4.	**Schedules of Contractor's equipment** For each specific equipment required in the construction work being tendered for. The awarding of marks for the categories will be as follows: - Batching Plant 1No (2 Marks) - 45M Crane 1No (2 Marks) - Excavator 2No (2 Marks) - Tipper Truck 15 ton 5No (2 Marks) - 10-ton Roller 1No (1 Mark) - 20-ton Roller 1No (1 Mark)		**10**
5.	**Financial report:** **Audited financial report for the last Three [3] years (2021, 2022 and 2023)** • Annual Turnover greater or equal to **Ksh 245 Million** (Max Points) • Annual Turnover below **Ksh 245 Million** (Points prorated) • Has not demonstrated/given evidence for turnover - (zero points ***NB: Bidders may provide consolidated financial statements if cash and cash equivalents are in separate project companies***		**15**
6.	**Evidence of financial resources:** **Cash in hand, Lines of Credit, overdraft facility, e.t.c (attach evidence)** • Has financial resources equal or above **Ksh 81 Million (Max Points)** • Has financial resources below **Ksh 81 Million (Points prorated)** • Has not demonstrated/given evidence for the financial resources (**zero points)** ***NB: Bidders may provide consolidated financial statements if cash and cash equivalents are in separate project companies***		**25**
7.	**Provision of calculations for Debt Profile: EBITDA / Interest (x times) from the audited financial states for the last three (3) years** • Debt profile greater than or equal to 2x (5 mks) • Debt profile between 1.5x and 2x (3 mks) • Debt profile between 1x and 1.5x (1 mk) • Debt profile below 1x (Zero mks) ***NB: Bidders may provide consolidated financial statements if cash and cash equivalents are in separate project companies***		**5**
8.	**Detailed works program outlining the methodology of implementing the project to completion including the defects liability period.**		**5**
	Adequacy of the proposed Works program: • Has attached a clear and legible Works Program (**1mk)** • Program captures all elements specific to the proposed works (**1mk)** • Program covers the required timeline and all elements are reasonably scheduled. (**0.5 mk)**		**2.5**

Item	Description	Points Scored	Max. Points
	Adequacy of the proposed methodology: • Captures the Contractor's Organization structure. (**1mk)** • Captures all elements specific to the proposed works. (**1mk)** • Captures the inclusion of all statutory requirements specific to the works (OSHA, NCA, NEMA, Stakeholder engagement, e.t.c.) **(0.5 mk**)		**2.5**
9	**Sub-contractors:** **a) Electrical Subcontractor** NCA category 4 valid practicing license for Electrical Works Project – **1 Marks** **Specific Experience in Highrise Residential & Commercial Developments (2 No. Projects)** • Project value of Kshs 45 Million and above)– **2 marks per project** • Project value of below Kshs 45 Million **(Points prorated)** • Has not demonstrated/given evidence of specific experience (**zero points)** **b) Mechanical Subcontractor** NCA category 4 valid practicing license for Mechanical Works Project – **1 Marks** **Specific Experience in Highrise Residential & Commercial Developments (2 No. Projects)** • Project value of Kshs 14 Million and above – **2 marks per project** • Project value of below Kshs. 14 Million - **(Points prorated)** • Has not demonstrated/given evidence of specific experience (**zero points)**		**10**
	TOTAL POINTS		**100**
	MINIMUM POINTS		**70**

NB: Tenders attaining the minimum score of 70 points in the detailed technical evaluation shall be subjected to financial evaluation and comparison to determine the lowest evaluated price of the tender.

C. Financial Evaluation:

Financial Evaluation shall comprise of the following:

a) Completeness of the Bills of Quantities*:* The Bills of Quantities section of the submitted Tender Document must be complete as issued, with no alteration, addition or qualification of any kind whatsoever made by the Tenderer to the text of the document. Any alterations, additions or qualifications shall be considered as material deviations as per ITT 31 and shall lead to Disqualification.

b) Examination of unit rates: Each bid shall be subjected to an evaluation of unit rates. Bids shall be assessed to confirm uniformity and consistency in rates of similar individual line items. Bids not meeting this criterion shall be disqualified and error checks shall not be undertaken.

c) Error checks: Successful bids from the examination of unit rates shall be evaluated for arithmetic errors. All arbitrary additions to the tender document shall be considered as arithmetic errors. An assessment of the bids taking into consideration the Tender Sum, corrections relating to arithmetic errors and any discounts offered shall be done to determine the bids' Evaluated Tender Sum.

d) **Conformance with the estimated cost: The estimate for the project is Kshs 490 Million (490,000,00.00). with a plinth area 11,853 Sqm . The development cost (all-inclusive for the built-up structures and all the external works) shall be up to Ksh. 41,500 per square metre based on the plinth areas.**

e) Ranking of the bids: Ranking of the bids using their Evaluated Tender Sums shall be undertaken. The ranking shall be used to determine the bid with the Lowest Evaluated Tender sum, which shall be considered for award

4.0 MULTIPLE CONTRACTS

4.1 Multiple contracts will be permitted in accordance with ITT 35.4. Tenderers are evaluated on basis of Lots and a lowest evaluated tenderer identified for each Lot. The Procuring Entity will select one Option of the two Options listed below for award of Contracts.

OPTION 1

(i) If a tenderer wins only one Lot, the tenderer will be awarded a contract for that Lot, provided the tenderer meets the Eligibility and Qualification Criteria for that Lot.

(ii) If a tenderer wins more than one Lot, the tender will be awarded a contract for all won Lots, provided the tenderer meets the aggregate Eligibility and Qualification Criteria for all the won Lots. The tenderer will be awarded only the combinations for which the tenderer qualifies and the others will be considered for award to second lowest the tenderers.

OPTION 2

The Procuring Entity will consider all possible combinations of won Lots [contract(s)] and determine the combination with the lowest evaluated price. Tenders will then be awarded to the Tenderer or Tenderers in the combination provided the tenderer meets the aggregate Eligibility and Qualification Criteria for all the won Lots

5.0 ALTERNATIVE TENDERS (ITT 13.1) ***N/A***

Alternative Tenders (ITT 13.1)

An alternative if permitted under ITT 3.1, will be evaluated as follows:

The Procuring Entity shall consider Tenders offered for alternatives as specified in Part 2 - Works requirements. Only the technical alternatives, if any, of the Tenderer with the Best Evaluated Tender conforming to the basic technical requirements shall be considered by the Procuring Entity.

6.0 MARGIN OF PREFERENCE – NOT APPLICABLE

6.1 If the TDS so specifies, the Procuring Entity will grant a margin of preference of fifteen percent (15%) to be loaded on evaluated prices of the foreign tenderers, where the percentage of shareholding of Kenyan citizens is less than fifty- one percent (51%).

6.2 Contractors shall be asked to provide, as part of the data for qualification, such information, including details of ownership, as shall be required to determine whether, according to the classification established by the Procuring Entity, a particular contractor or group of contractors qualifies for a margin of preference.

6.3 After Tenders have been received and reviewed by the Procuring Entity, responsive Tenders shall be assessed to ascertain their percentage of shareholding of Kenyan citizens. Responsive tenders shall be classified into the following groups:

i) *Group A:* tenders offered by Kenyan Contractors and other Tenderers where Kenyan citizens hold shares

of over fifty one percent (51%).

ii) *Group B:* tenders offered by foreign Contractors and other Tenderers where Kenyan citizens hold shares of less than fifty one percent (51%).

64 All evaluated tenders in each group shall, as a first evaluation step, be compared to determine the lowest tender, and the lowest evaluated tender in each group shall be further compared with each other. If, as a result of this comparison, a tender from Group A is the lowest, it shall be selected for the award of contract. If a tender from Group B is the lowest, an amount equal to the percentage indicated in Item 6.1 of the respective tender price, including unconditional discounts and excluding provisional sums and the cost of day works, if any, shall be added to the evaluated price offered in each tender from Group B. All tenders shall then be compared using new prices with added prices to Group B and the lowest evaluated tender from Group A. If the tender from Group A is still the lowest tender, it shall be selected for award. If not, the lowest evaluated tender from Group B based on the first evaluation price shall be selected.

7. Post qualification and Contract ward (ITT 39), more specifically,

a) In case the tender was subject to post-qualification, the contract shall be awarded to the lowest evaluated tenderer, subject to confirmation of pre-qualification data, if so required.

b) In case the tender was not subject to post-qualification, the tender that has been determined to be the lowest evaluated tenderer shall be considered for contract award, subject to meeting each of the following conditions.

i) The Tenderer shall demonstrate that it has access to, or has available, liquid assets, unencumbered real assets, lines of credit, and other financial means (independent of any contractual advance payment) sufficient to meet the construction cash flow **of Kenya Shillings 81 Million (81,000,000.00)**

ii) Minimum average annual construction turnover of **Kenya Shillings 245 Million (245,000,000.00)** equivalent calculated as total certified payments received for contracts in progress and/or completed within the last **three (3) years.**

iii) At least **Three (3) no.** of contract(s) of a similar nature executed **within Kenya**, or the East African Community or abroad, that have been satisfactorily and substantially completed as a prime contractor, or joint venture member or sub-contractor cumulative value **Kenya shillings 490 Million (490,000,000.00)** or equivalent.

iv) Contractor's Representative and Key Personnel, which are specified as

No.	Position	Total Work Experience (years)	Experience in Similar Works (years)
1	Project Manager (Bachelor of Architecture OR Bachelor of Quantity Surveying OR Civil Engineering OR Construction Management. all registered with relevant professional bodies).	10	5
2	Site Agent (Bachelor in Architecture OR Quantity Surveying OR Civil Engineering. all registered with relevant professional bodies).	10	5

v) Contractors key equipment listed on the table "Contractor's Equipment" below and more specifically listed as

Item No.	Equipment Type and Characteristics	No. required
1	Batching Plant	1
2	45M Crane/Hoist	1
3	Excavator	2
4	Tipper Truck 15 ton.	5
5	Mobile Concrete Mixer Truck Complete with pump	1
6	20-ton Roller	1

vi) Other Conditions depending on their seriousness

f) **History of non-performing contracts:**

Tenderer and each member of JV in case the Tenderer is a JV, shall demonstrate that non-performance of a contract did not occur because of the default of the Tenderer, or the member of a JV. The required information shall be furnished in the appropriate form.

g) **Pending Litigation**

Financial position and prospective long-term profit ability of the Single Tenderer, and in the case the Tenderer is a JV, of each member of the JV, shall remain sound according to criteria established with respect to Financial Capability under Paragraph (i) above if all pending litigation will be resolved against the Tenderer. Tenderer shall provide information on pending litigations in the appropriate form.

h) **Litigation History**

There shall be no consistent history of court/arbitral award decisions against the Tenderer, in the last **Three Years**. All parties to the contract shall furnish the information in the appropriate form about any litigation or arbitration resulting from contracts completed or on going under its execution over the years specified. A consistent history of awards against the Tenderer or any member of a JV may result in rejection of the tender.

i) **Letter of Authority**

The bidder shall provide letter of Authority to seek references from bidder's bank (letter addressed to the specific bank(s) and account(s) giving authority to Client to verify the bank statements for the Main Contractor).

j) **Current Engagement/Commitments**

The procuring entity shall make enquiries or shall require the bidders to provide contact persons to their current commitments/projects for verification of the project details as well as their performance.

QUALIFICATION FORM*

1	2	3	*4*	*5*
Item No.	**Qualification Subject**	**Qualification Requirement**	***Document To be Completed by Tenderer***	***For Procuring Entity's Use (Qualification met or Not Met)***
1	Nationality	Nationality in accordance with ITT 3.6	Forms ELI – 1.1 and 1.2, with attachments	
2	Tax Obligations for Kenyan Tenderers	Has produced a current tax clearance certificate or tax exemption certificate issued by Kenya Revenue Authority in accordance with ITT 3.14.	Attachment	
3	Conflict of Interest	No conflicts of interest in accordance with ITT 3.3	Form of Tender	
4	PPRA Eligibility	Not having been declared ineligible by the PPRA as described in ITT 3.7	Form of Tender	
5	State- owned Enterprise	Meets conditions of ITT 3.8	Forms ELI – 1.1 and 1.2, with attachments	
6	Goods, equipment and services to be supplied under the contract	To have their origin in any country that is not determined ineligible under ITT 4.1	Forms ELI – 1.1 and 1.2, with attachments	
7	History of Non-Performing Contracts	Non-performance of a contract did not occur as a result of contractor default since **1st January 2021**	Form CON-2	
8	Suspension Based on Execution of Tender/Proposal Securing Declaration by the Procuring Entity	Not under suspension based on-execution of a Tender/Proposal Securing Declaration pursuant to ITT 19.9	Form of Tender	
9	Pending Litigation	Tender's financial position and prospective long-term profitability still sound according to criteria established in 3.1 and assuming that all pending litigation will NOT be resolved against the Tenderer.	Form CON – 2	
10	Litigation History	No consistent history of court/arbitral award decisions against the Tenderer since **1st January 2021**	Form CON – 2	
11	Financial Capabilities	(i) The Tenderer shall demonstrate that it has access to, or has available, liquid assets, unencumbered real assets, lines of credit, and other financial means (independent of any contractual advance payment) sufficient to meet the construction cash flow requirements estimated **81 Million** equivalent for the subject contract(s) net of the Tenderer's other commitments. (ii) The Tenderers shall also demonstrate, to the satisfaction	Form FIN – 3.1, with attachments	

1	2	3	*4*	*5*
Item No.	**Qualification Subject**	**Qualification Requirement**	***Document To be Completed by Tenderer***	***For Procuring Entity's Use (Qualification met or Not Met)***
		of the Procuring Entity, that it has adequate sources of finance to meet the cash flow requirements on works currently in progress and for future contract commitments. (iii) The audited balance sheets or, if not required by the laws of the Tenderer's country, other financial statements acceptable to the Procuring Entity, for the last **3 years** shall be submitted and must demonstrate the current soundness of the Tenderer's financial position and indicate its prospective long-term profitability.		
12	Average Annual Construction Turnover	Minimum average annual construction turnover of **Ksh 245 Million** equivalent calculated as total certified payments received for contracts in progress and/or completed within the last ***Three* years**, divided ***Three* years.**	Form FIN – 3.2	
13	General Construction Experience	Experience under construction contracts in the role of prime contractor, JV member, sub-contractor, or management contractor for at least the last ***Ten (10)* years**, starting **1st January *2014***.	Form EXP – 4.1	
14	Specific Construction & Contract Management Experience	A minimum number of **3 (Three)** similar contracts specified below that have been satisfactorily and substantially completed as a prime contractor, joint venture member, management contractor or sub-contractor between **1st January 2019** and tender submission deadline i.e. …. (number) contracts, cumulative value **Ksh 450 Million** [*In case the Works are to be tender as individual contracts under multiple contract procedure, the minimum number of contracts required for purposes of evaluating qualification shall be selected from the options mentioned in ITT 35.4]* The similarity of the contracts shall be based on the following: [*Based on Section VII, Scope of Works, specify the minimum key requirements in terms of physical size, complexity, construction method, technology and/or other characteristics including part of the requirements that may be met by specialized subcontractors, if permitted in accordance with ITT 34.3]*	Form EXP 4.2(a)	

SECTION IV - TENDERING FORMS

QUALIFICATION FORMS

1. FOREIGN TENDERERS 40%RULE

Pursuant to ITT 3.9, a foreign tenderer must complete this form to demonstrate that the tender fulfils this condition.

ITEM	Description of Work Item	Describe location of Source	COST in K. shillings	Comments, if any
A	Local Labor			
1				
2				
3				
4				
5				
B	Sub contracts from Local sources			
1				
2				
3				
4				
5				
C	Local materials			
1				
2				
3				
4				
5				
D	Use of Local Plant and Equipment			
1				
2				
3				
4				
5				
E	Add any other items			
1				
2				
3				
4				
5				
6				
	TOTAL COST LOCAL CONTENT		XXXXX	

2. FORM: EQUIPMENT

The Tenderer shall provide adequate information to demonstrate clearly that it has the capability to meet the requirements for the key equipment listed in Section III, Evaluation and Qualification Criteria. A separate Form shall be prepared for each item of equipment listed, or for alternative equipment proposed by the Tenderer.

Item of equipment		
Equipment information	Name of manufacturer	Model and power rating
	Capacity	Year of manufacture
Current status	Current location	
	Details of current commitments	
Source	Indicate source of the equipment ☐ Owned ☐ Rented ☐ Leased ☐ Specially manufactured	

Omit the following information for equipment owned by the Tenderer.

Owner	Name of owner	
	Address of owner	
	Telephone	Contact name and title
	Fax	Telex
Agreements	Details of rental / lease / manufacture agreements specific to the project	

3. FORM PER -1

Contractor's Representative and Key Personnel Schedule

Tenderers should provide the names and details of the suitably qualified Contractor's Re presentative and Key Personnel to perform the Contract. The data on their experience should be supplied using the Form PER-2 below for each candidate.

Contractor' Representative and Key Personnel

1.	**Title of position:** Contractor's Representative	
	Name of candidate:	
	Duration of appointment:	[*insert the whole period (start and end dates) for which this position will be engaged*]
	Time commitment: for this position:	[*insert the number of days/week/months/ that has been scheduled for this position*]
	Expected time schedule for this position:	[*insert the expected time schedule for this position (e.g. attach high level Gantt chart*]
2.	**Title of position:** *[_____]*	
	Name of candidate:	
	Duration of appointment:	[*insert the whole period (start and end dates) for which this position will be engaged*]
	Time commitment: for this position:	[*insert the number of days/week/months/ that has been scheduled for this position*]
	Expected time schedule for this position:	[*insert the expected time schedule for this position (e.g. attach high level Gantt chart*]
3.	**Title of position:** *[_____]*	
	Name of candidate:	
	Duration of appointment:	[*insert the whole period (start and end dates) for which this position will be engaged*]
	Time commitment: for this position:	[*insert the number of days/week/months/ that has been scheduled for this position*]
	Expected time schedule for this position:	[*insert the expected time schedule for this position (e.g. attach high level Gantt chart*]
4.	**Title of position:** *[_____]*	
	Name of candidate:	
	Duration of appointment:	[*insert the whole period (start and end dates) for which this position will be engaged*]
	Time commitment: for this position:	[*insert the number of days/week/months/ that has been scheduled for this position*]
	Expected time schedule for this position:	[*insert the expected time schedule for this position (e.g. attach high level Gantt chart*]
5.	**Title of position:** *[insert title]*	
	Name of candidate	
	Duration of appointment:	[*insert the whole period (start and end dates) for which this position will be engaged*]
	Time commitment: for this position:	[*insert the number of days/week/months/ that has been scheduled for this position*]
	Expected time schedule for this position:	[*insert the expected time schedule for this position (e.g. attach high level Gantt chart*]

4. FORM PER - 2:

Resume and Declaration - Contractor's Representative and Key Personnel.

Name of Tenderer

Position [*#1*]: [*title of position from Form PER-1*]		
Personnel information	Name:	Date of birth:
	Address:	E-mail:
	Professional qualifications:	
	Academic qualifications:	
	Language proficiency: *[language and levels of speaking, reading and writing skills]*	
Details		
	Address of Procuring Entity:	
	Telephone:	Contact (manager / personnel officer):
	Fax:	
	Job title:	Years with present Procuring Entity:

Summarize professional experience in reverse chronological order. Indicate particular technical and managerial experience relevant to the project.

Project	Role	Duration of involvement	Relevant experience
[main project details]	*[role and responsibilities on the project]*	*[time in role]*	*[describe the experience relevant to this position]*

Declaration

I, the undersigned *[insert either "Contractor's Representative" or "Key Personnel" as applicable]*, certify that to the best of my knowledge and belief, the information contained in this Form PER-2 correctly describes myself, my qualifications and my experience.

I confirm that I am available as certified in the following table and throughout the expected time schedule for this position as provided in the Tender:

Commitment	**Details**
Commitment to duration of contract:	*[insert period (start and end dates) for which this Contractor's Representative or Key Personnel is available to work on this contract]*
Time commitment:	*[insert period (start and end dates) for which this Contractor's Representative or Key Personnel is available to work on this contract]*

I understand that any misrepresentation or omission in this Form may:

(a) be taken into consideration during Tender evaluation;
(b) result in my disqualification from participating in the Tender;
(c) result in my dismissal from the contract.

Name of Contractor's Representative or Key Personnel: [*insert name*]

Signature: _____

Date: (day month year): _____

Countersignature of authorized representative of the Tenderer:

Signature: _____

Date: (day month year): _____

5. TENDERERS QUALIFICATION WITHOUT PREQUALIFICATION

To establish its qualifications to perform the contract in accordance with Section III, Evaluation and Qualification Criteria the Tenderer shall provide the information requested in the corresponding Information Sheets included hereunder.

5.1 FORM ELI -1.1

Tenderer Information

Form

Date:_____

ITT No. and title:_____

Tenderer's name
In case of Joint Venture (JV), name of each member:
Tenderer's actual or intended country of registration: *[indicate country of Constitution]*
Tenderer's actual or intended year of incorporation:
Tenderer's legal address [in country of registration]:
Tenderer's authorized representative information Name: _____ Address: _____ Telephone/Fax numbers: _____ E-mail address: _____
1. Attached are copies of original documents of ☐ Articles of Incorporation (or equivalent documents of constitution or association), and/or documents of registration of the legal entity named above, in accordance with ITT 3.6 ☐ In case of JV, letter of intent to form JV or JV agreement, in accordance with ITT 3.5 ☐In case of state-owned enterprise or institution, in accordance with ITT 3.8, documents establishing: • Legal and financial autonomy • Operation under commercial law 1. Establishing that the Tenderer is not under the supervision of the Procuring Entity 2. Included are the organizational chart and a list of Board of Directors

52 FORM ELI -1.2

Tenderer's JV Information Form
(to be completed for each member of Tenderer's JV)

Date:_____

ITT No. and title:_____

Tenderer's JV name:
JV member's name:
JV member's country of registration:
JV member's year of constitution:
JV member's legal address in country of constitution:
JV member's authorized representative information Name: _____ Address: _____ Telephone/Fax numbers: _____ E-mail address: _____
1. Attached are copies of original documents of ☐ Articles of Incorporation (or equivalent documents of constitution or association), and/or registration documents of the legal entity named above, in accordance with ITT 3.6. ☐ In case of a state-owned enterprise or institution, documents establishing legal and financial autonomy, operation in accordance with commercial law, and that they are not under the supervision of the Procuring Entity, in accordance with ITT 3.5. 2. Included are the organizational chart and a list of Board of Directors.

53 FORM CON –2

Historical Contract Non-Performance, Pending Litigation and Litigation History

Tenderer's Name: _____
Date: _____
JV Member's Name_____
ITT No. and title: _____

Non-Performed Contracts in accordance with Section III, Evaluation and Qualification Criteria			
☐ Contract non-performance did not occur since 1st January *[insert year]* specified in Section III, Evaluation and Qualification Criteria, Sub-Factor 2.1. ☐ Contract(s) not performed since 1st January *[insert year]* specified in Section III, Evaluation and Qualification Criteria, requirement 2.1 ☐ Contract(s) withdrawn since 1st January *[insert year]* specified in Section III, Evaluation and Qualification Criteria, requirement 2.1			
Year	**Non- performed portion of contract**	**Contract Identification**	**Total Contract Amount (current value, currency, exchange rate and Kenya Shilling equivalent)**
[insert year]	*[insert amount and percentage]*	Contract Identification: *[indicate complete contract name/ number, and any other identification]* Name of Procuring Entity: *[insert full name]* Address of Procuring Entity: *[insert street/city/country]* Reason(s) for nonperformance: *[indicate main reason(s)]*	*[insert amount]*
Pending Litigation, in accordance with Section III, Evaluation and Qualification Criteria			
☐ No pending litigation in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.3. ☐ Pending litigation in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.3 as indicated below.			

Year of dispute	**Amount in dispute (currency)**	**Contract Identification**	**Total Contract Amount (currency), Kenya Shilling Equivalent (exchange rate)**
		Contract Identification: _____ Name of Procuring Entity: _____ Address of Procuring Entity: _____ Matter in dispute: _____ Party who initiated the dispute: ____ Status of dispute: _____	
		Contract Identification: Name of Procuring Entity: Address of Procuring Entity: Matter in dispute: Party who initiated the dispute: Status of dispute:	
Litigation History in accordance with Section III, Evaluation and Qualification Criteria			
☐ No Litigation History in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.4. ☐ Litigation History in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.4 as indicated below.			

Year of dispute	Amount in dispute (currency)	Contract Identification	Total Contract Amount (currency), Kenya Shilling Equivalent (exchange rate)
[insert year]	*[insert percentage]*	Contract Identification: [indicate complete contract name, number, and any other identification] Name of Procuring Entity: *[insert full name]* Address of Procuring Entity: *[insert street/city/country]* Matter in dispute: *[indicate main issues in dispute]* Party who initiated the dispute: *[indicate "Procuring Entity" or "Contractor"]* Reason(s) for Litigation and award decision *[indicate main reason(s)]*	*[insert amount]*

Include details relating to potential bid-rigging practices such as previous occasions where tenders were withdrawn, joint bids with competitors, subcontracting work to unsuccessful tenderers, etc.

5.4 FORM FIN – 3.1:

Financial Situation and Performance

Tenderer's Name: _____
Date: _____
JV Member's Name_____
ITT No. and title: _____

5.4.1. Financial Data

Type of Financial information in_____ (currency)	**Historic information for previous _____*years,*** _____ **(amount in currency, currency, exchange rate*, USD equivalent)**				
	Year 1	Year 2	Year 3	Year 4	Year 5
Statement of Financial Position (Information from Balance Sheet)					
Total Assets (TA)					
Total Liabilities (TL)					
Total Equity/Net Worth (NW)					
Current Assets (CA)					
Current Liabilities (CL)					
Working Capital (WC)					
Information from Income Statement					
Total Revenue (TR)					
Profits Before Taxes (PBT)					
Cash Flow Information					
Cash Flow from Operating Activities					

*Refer to ITT 15 for the exchange rate

5.4.2 Sources of Finance

Specify sources of finance to meet the cash flow requirements on works currently in progress and for future contract commitments.

No.	Source of finance	Amount (Kenya Shilling equivalent)
1		
2		
3		

5.4.3 Financial documents

The Tenderer and its parties shall provide copies of financial statements for _____years pursuant Section III, Evaluation and Qualifications Criteria, Sub-factor 3.1. The financial statements shall:

(a) reflect the financial situation of the Tenderer or in case of JV member, and not an affiliated entity (such as parent company or group member).

(b) be independently audited or certified in accordance with local legislation.

(c) be complete, including all notes to the financial statements.

(d) correspond to accounting periods already completed and audited.

☐ Attached are copies of financial statements[1] for the _____ years required above; and complying with the requirements

[1] If the most recent set of financial statements is for a period earlier than 12 months from the date of Tender, the reason for this should be justified.

5.5 FORM FIN – 3.2:

Average Annual Construction Turnover

Tenderer's Name: _____
Date: _____
JV Member's Name_____
ITT No. and title: _____

	Annual turnover data (construction only)		
Year	**Amount Currency**	**Exchange rate**	**Kenya Shilling equivalent**
[indicate year]	*[insert amount and indicate currency]*		
Average Annual Construction Turnover *			

* See Section III, Evaluation and Qualification Criteria, Sub-Factor 3.2.

5.6 FORM FIN – 3.3:

Financial Resources

Specify proposed sources of financing, such as liquid assets, unencumbered real assets, lines of credit, and other financial means, net of current commitments, available to meet the total construction cash flow demands of the subject contract or contracts as specified in Section III, Evaluation and Qualification Criteria

Financial Resources		
No.	**Source of financing**	**Amount (Kenya Shilling equivalent)**
1		
2		
3		

5.7 FORM FIN – 3.4:

Current Contract Commitments / Works in Progress

Tenderers and each member to a JV should provide information on their current commitments on all contracts that have been awarded, or for which a letter of intent or acceptance has been received, or for contracts approaching completion, but for which an unqualified, full completion certificate has yet to be issued.

Current Contract Commitments					
No.	**Name of Contract**	**Procuring Entity's Contact Address, Tel,**	**Value of Outstanding Work [Current Kenya Shilling /month Equivalent]**	**Estimated Completion Date**	**Average Monthly Invoicing Over Last Six Months [Kenya Shilling /month)]**
1					
2					
3					
4					
5					

5.8 FORM EXP - 4.1

General Construction Experience

Tenderer's Name: _____
Date: _____
JV Member's Name_____
ITT No. and title: _____

Page _____of _____pages

Starting Year	Ending Year	Contract Identification	Role of Tenderer
		Contract name: _____ Brief Description of the Works performed by the Tenderer: _____ Amount of contract: _____ Name of Procuring Entity: _____ Address: _____	
		Contract name: _____ Brief Description of the Works performed by the Tenderer: _____ Amount of contract: _____ Name of Procuring Entity: _____ Address: _____	
		Contract name: _____ Brief Description of the Works performed by the Tenderer: _____ Amount of contract: _____ Name of Procuring Entity: _____ Address: _____	

5.9 FORM EXP - 4.2(a)

Specific Construction and Contract Management Experience

Tenderer's Name: _____
Date: _____
JV Member's Name_____
ITT No. and title: _____

Similar Contract No.	**Information**			
Contract Identification				
Award date				
Completion date				
Role in Contract	Prime Contractor ☐	Member in JV ☐	Management Contractor ☐	Sub-contractor ☐
Total Contract Amount			**Kenya Shilling**	
If member in a JV or sub-contractor, specify participation in total Contract amount				
Procuring Entity's Name:				
Address: Telephone/fax number E-mail:				

5.9 FORM EXP - 4.2(a)

Specific Construction and Contract Management Experience

Tenderer's Name: _____
Date: _____
JV Member's Name_____
ITT No. and title: _____

Similar Contract No.	**Information**			
Contract Identification				
Award date				
Completion date				
Role in Contract	Prime Contractor ☐	Member in JV ☐	Management Contractor ☐	Sub-contractor ☐
Total Contract Amount			**Kenya Shilling**	
If member in a JV or sub-contractor, specify participation in total Contract amount				
Procuring Entity's Name:				
Address: Telephone/fax number E-mail:				

5.9 FORM EXP - 4.2 (a) (cont.)

Specific Construction and Contract Management Experience (cont.)

Similar Contract No.	**Information**
Description of the similarity in accordance with Sub-Factor 4.2(a) of Section III:	
1. Amount	
2. Physical size of required works items	
3. Complexity	
4. Methods/Technology	
5. Construction rate for key activities	
6. Other Characteristics	

5.10 FORM EXP - 4.2(b)

Construction Experience in Key Activities

Tenderer's Name: _____
Date: _____
Tenderer's JV Member Name: _____
Sub-contractor's Name[2] (as per ITT 34): _____
ITT No. and title: _____

All Sub-contractors for key activities must complete the information in this form as per ITT 34 and Section III, Evaluation and Qualification Criteria, Sub-Factor 4.2.

1. Key Activity No One: _ _____

	Information			
Contract Identification				
Award date				
Completion date				
Role in Contract	Prime Contractor ☐	Member in JV ☐	Management Contractor ☐	Sub-contractor ☐
Total Contract Amount			**Kenya Shilling**	
Quantity (Volume, number or rate of production, as applicable) performed under the contract per year or part of the year	Total quantity in the contract (i)	Percentage participation (ii)		Actual Quantity Performed (i) x (ii)
Year 1				
Year 2				
Year 3				
Year 4				
Procuring Entity's Name:				
Address: Telephone/fax number E-mail:				

[2] If applicable

	Information
Description of the key activities in accordance with Sub-Factor 4.2(b) of Section III:	

2. Activity No. Two
3. ……

OTHER FORMS

6. FORM OF TENDER

INSTRUCTIONS TO TENDERERS

i) All italicized text is to help the Tenderer in preparing this form.

ii) The Tenderer must prepare this Form of Tender on stationery with its letterhead clearly showing the Tenderer's complete name and business address. Tenderers are reminded that this is a mandatory requirement.

iii) Tenderer must complete and sign CERTIFICATE OF INDEPENDENT TENDER DETERMINATION and the SELF DECLARATION FORMS OF THE TENDERER as listed under (xxii) below.

Date of this Tender submission:.....*[insert date (as day, month and year) of Tender submission]* **Tender Name and Identification**:.....*[insert identification]* **Alternative No.**:.....*[insert identification No if this is a Tender for an alternative]*

To: ..... *[Insert complete name of Procuring Entity]*

Date of thisTender submission: *[insert date (as day, month and year) of Tender submission]* **Request for Tender No.: *[****insert identification]* **Name and description of Tender** *[Insert as per ITT)* **Alternative No.:** *[insert identification No if this is a Tender for an alternative]*

To: *[insert complete name of Procuring Entity]*

Dear Sirs,

1. In accordance with the Conditions of Contract, Specifications, Drawings and Bills of Quantities for the execution of the above named Works, we, the undersigned offer to construct and complete the Works and remedy any defects therein for the sum[3] of Kenya Shillings [*[Amount in figures]* _____Kenya Shillings *[amount in words]*_____

The above amount includes foreign currency[4] amount (s) of [*state figure or a percentage and currency*] [figures]_____[words] _____
_____

2. We undertake, if our tender is accepted, to commence the Works as soon as is reasonably possible after the receipt of the Architect notice to commence, and to complete the whole of the Works comprised in the Contract within the time stated in the Special Conditions of Contract.

3. We agree to adhere by this tender until _____*[Insert date]*, and it shall remain binding upon us and may be accepted at any time before that date.

4. We understand that you are not bound to accept the lowest or any tender you may receive.

5. We, the undersigned, further declare that:

i) No reservations: We have examined and have no reservations to the tender document, including Addenda issued in accordance with ITT 28;

ii) Eligibility: We meet the eligibility requirements and have no conflict of interest in accordance with ITT 3 and 4;

[3] *This sum should be carried forward from the Summary of the Bills of Quantities.*
[4] *The percentage quoted above should not include provisional sums, and not more than two foreign currencies are allowed.*

iii) Tender - Securing Declaration: We have not been suspended nor declared ineligible by the Procuring Entity based on execution of a Tender-Securing or Proposal-Securing Declaration in the Procuring Entity's Country in accordance with ITT 19.8;

iv) Conformity: We offer to execute in conformity with the tendering documents and in accordance with the implementation and completion specified in the construction schedule, the following Works: *[insert a brief description of the Works];*

v) Tender Price: The total price of our Tender, excluding any discounts offered in item 1 above is: *[Insert one of the options below as appropriate]*

vi Option 1, incase of one lot: Total price is: *[insert the total price of the Tender in words and figures, indicating the various amounts and the respective currencies*]; or

Option2, in case of multiple lots:

(a) Total price of each lot [*insert the total price of each lot in words and figures, indicating the various amounts and the respective currencies*]; and

(b) Total price of all lots (sum of all lots) [*insert the total price of all lots in words and figures, indicating the various amounts and the respective currencies*];

vii) Discounts: The discounts offered and the methodology for their application are:

viii) The discounts offered are: [*Specify in detail each discount offered.*]

ix) The exact method of calculations to determine the net price after application of discounts is shown below: [*Specify in detail the method that shall be used to apply the discounts*];

x) Tender Validity Period: Our Tender shall be valid for the period specified in TDS 18.1 (as amended, if applicable) from the date fixed for the Tender submission deadline specified in TDS 22.1 (as amended, if applicable), and it shall remain binding upon us and may be accepted at any time before the expiration of that period;

xi) Performance Security: If our Tender is accepted, we commit to obtain a Performance Security in accordance with the Tendering document;

xii) One Tender Per Tender: We are not submitting any other Tender(s) as an individual Tender, and we are not participating in any other Tender(s) as a Joint Venture member or as a sub-contractor, and meet the requirements of ITT 3.4, other than alternative Tenders submitted in accordance with ITT 13.3;

xiii) Suspension and Debarment: We, along with any of our subcontractors, suppliers, Engineer, manufacturers, or service providers for any part of the contract, are not subject to, and not controlled by any entity or individual that is subject to, a temporary suspension or a debarment imposed by the Public Procurement Regulatory Authority or any other entity of the Government of Kenya, or any international organization.

xiv) State-owned enterprise or institution: [*select the appropriate option and delete the other*] [*We are not a state- owned enterprise or institution*]/[*We are a state-owned enterprise or institution but meet the requirements of ITT3.8*];

xv) Commissions, gratuities, fees: We have paid, or will pay the following commissions, gratuities, or fees with respect to the tender process or execution of the Contract: *[insert complete name of each Recipient, its full address, the reason for which each commission or gratuity was paid and the amount and currency of each such commission or gratuity].*

Name of Recipient	Address	Reason	Amount

(If none has been paid or is to be paid, indicate "none.")

xvi) Binding Contract: We understand that this Tender, together with your written acceptance there of included

in your Letter of Acceptance, shall constitute a binding contract between us, until a formal contract is prepared and executed;

xvii) Not Bound to Accept: We understand that you are not bound to accept the lowest evaluated cost Tender, the Most Advantageous Tender or any other Tender that you may receive;

xviii) Fraud and Corruption: We here by certify that we have taken steps to ensure that no person acting for us or on our behalf engages in any type of Fraud and Corruption; and

xix) Collusive practices: We hereby certify and confirm that the tender is genuine, non-collusive and made with the intention of accepting the contract if awarded. To this effect we have signed the "Certificate of Independent Tender Determination" attached below.

xx) We undertake to adhere by the Code of Ethics for Persons Participating in Public Procurement and Asset Disposal, copy available from_____(*specify website*) during the procurement process and the execution of any resulting contract.

xxi) **Beneficial Ownership Information:** We commit to provide to the procuring entity the Beneficial Ownership Information in conformity with the Beneficial Ownership Disclosure Form upon receipt of notification of intention to enter into a contract in the event we are the successful tenderer in this subject procurement proceeding.

xxii) We, the Tenderer, have duly completed, signed and stamped the following Forms as part of our Tender:

a) Tenderer's Eligibility; Confidential Business Questionnaire - to establish we are no tin any conflict to interest.

b) Certificate of Independent Tender Determination - to declare that we completed the tender without colluding with other tenderers.

c) Self-Declaration of the Tenderer - to declare that we will, if awarded a contract, not engage in any form of fraud and corruption.

d) Declaration and commitment to the Code of Ethics for Persons Participating in Public Procurement and Asset Disposal.

Further, we confirm that we have read and understood the full content and scope of fraud and corruption as informed in **"Appendix 1 - Fraud and Corruption**" attached to the Form of Tender.

Name of the Tenderer: *[*insert complete name of person signing the Tender*]

Name of the person duly authorized to sign the Tender on behalf of the Tenderer: **[*insert complete name of person duly authorized to sign the Tender*]

Title of the person signing the Tender: [*insert complete title of the person signing the Tender*]

Signature of the person named above: [*insert signature of person whose name and capacity are shown above*]

Date signed [*insert date of signing*] day of [*insert month*], [*insert year*]

Date signed_____day of_____,_____

Notes
** In the case of the Tender submitted by joint venture specify the name of the Joint Venture as Tenderer.*
***Person signing the Tender shall have the power of attorney given by the Tenderer to be attached with the Tender.*

FORM OF ALTERNATIVE TENDER (ALTERNATIVE TECHNOLOGY) - N/A

INSTRUCTIONS TO TENDERERS

i) The Tenderers who wish to offer Alternative Tender shall complete this Form of Alternative Tender (Alternative Technology). Tenderers who fill this Form of Alternative tender and does not complete Form No. 6: Form of Tender shall be disqualified.

ii) The Tenderer must prepare this Form of Alternative Tender – Alternative Technology on stationery with its letterhead clearly showing the Tenderer's complete name and business address.

iii) Alternative Tender shall be prepared in accordance with TDS ITT 13.1 – 13.4

iv) All italicized text is to help the Tenderer in preparing this form.

v) The Tenderer must prepare this Form of Tender on stationery with its letterhead clearly showing the Tenderer's complete name and business address. Tenderers are reminded that this is a mandatory requirement.

vi) Tenderer must complete and sign CERTIFICATE OF INDEPENDENT TENDER DETERMINATION and the SELF DECLARATION FORMS OF THE TENDERER as listed under (xxii) below.

Date of this Tender submission:.....*[insert date (as day, month and year) of Tender submission]* **Tender Name and Identification**:.....*[insert identification]* **Alternative No.**:.....*[insert identification No if this is a Tender for an alternative]*

To: ..... *[Insert complete name of Procuring Entity]*

Date of thisTender submission: *[insert date (as day, month and year) of Tender submission]* **Request for Tender No.: *[****insert identification]* **Name and description of Tender** *[Insert as per ITT)* **Alternative No.:** *[insert identification No if this is a Tender for an alternative]*

To: *[insert complete name of Procuring Entity]*

Dear Sirs,

1. In accordance with the Conditions of Contract, Specifications, Drawings and Bills of Quantities for the execution of the above named Works, we, the undersigned offer to construct and complete the Works and remedy any defects therein for the sum[5] of Kenya Shillings [*[Amount in figures]* _____Kenya Shillings *[amount in words]*_____

   The above amount includes foreign currency[6] amount (s) of [*state figure or a percentage and currency*] [figures]_____[words] _____
   _____

2. We undertake, if our tender is accepted, to commence the Works as soon as is reasonably possible after the receipt of the Architect notice to commence, and to complete the whole of the Works comprised in the Contract within the time stated in the Special Conditions of Contract.

3. We agree to adhere by this tender until _____*[Insert date]*, and it shall remain binding upon us and may be accepted at any time before that date.

4. We understand that you are not bound to accept the lowest or any tender you may receive.

5. We, the undersigned, further declare that:

[5] *This sum should be carried forward from the Summary of the Bills of Quantities.*
[6] *The percentage quoted above should not include provisional sums, and not more than two foreign currencies are allowed.*

i) No reservations: We have examined and have no reservations to the tender document, including Addenda issued in accordance with ITT 28;

ii) Eligibility: We meet the eligibility requirements and have no conflict of interest in accordance with ITT 3 and 4;

iii) Tender - Securing Declaration: We have not been suspended nor declared ineligible by the Procuring Entity based on execution of a Tender-Securing or Proposal-Securing Declaration in the Procuring Entity's Country in accordance with ITT 19.8;

iv) Conformity: We offer to execute in conformity with the tendering documents and in accordance with the implementation and completion specified in the construction schedule, the following Works: *[insert a brief description of the Works];*

v) Tender Price: The total price of our Tender, excluding any discounts offered in item 1 above is: *[Insert one of the options below as appropriate]*

vi Option 1, incase of one lot: Total price is: *[insert the total price of the Tender in words and figures, indicating the various amounts and the respective currencies*]; or

Option2, in case of multiple lots:

(c) Total price of each lot [*insert the total price of each lot in words and figures, indicating the various amounts and the respective currencies*]; and

(d) Total price of all lots (sum of all lots) [*insert the total price of all lots in words and figures, indicating the various amounts and the respective currencies*];

xxiii) Discounts: The discounts offered and the methodology for their application are:

xxiv)The discounts offered are: [*Specify in detail each discount offered.*]

xxv) The exact method of calculations to determine the net price after application of discounts is shown below: [*Specify in detail the method that shall be used to apply the discounts*];

xxvi)Tender Validity Period: Our Tender shall be valid for the period specified in TDS 18.1 (as amended, if applicable) from the date fixed for the Tender submission deadline specified in TDS 22.1 (as amended, if applicable), and it shall remain binding upon us and may be accepted at any time before the expiration of that period;

xxvii) Performance Security: If our Tender is accepted, we commit to obtain a Performance Security in accordance with the Tendering document;

xxviii) One Tender Per Tender: We are not submitting any other Tender(s) as an individual Tender, and we are not participating in any other Tender(s) as a Joint Venture member or as a sub-contractor, and meet the requirements of ITT 3.4, other than alternative Tenders submitted in accordance with ITT 13.3;

xxix)Suspension and Debarment: We, along with any of our subcontractors, suppliers, Engineer, manufacturers, or service providers for any part of the contract, are not subject to, and not controlled by any entity or individual that is subject to, a temporary suspension or a debarment imposed by the Public Procurement Regulatory Authority or any other entity of the Government of Kenya, or any international organization.

xxx) State-owned enterprise or institution: [*select the appropriate option and delete the other*] [*We are not a state- owned enterprise or institution*]/[*We are a state-owned enterprise or institution but meet the requirements of ITT3.8*];

xxxi) Commissions, gratuities, fees: We have paid, or will pay the following commissions, gratuities, or fees with respect to the tender process or execution of the Contract: *[insert complete name of each Recipient, its full address, the reason for which each commission or gratuity was paid and the amount and currency of each such commission or gratuity].*

Name of Recipient	Address	Reason	Amount

(If none has been paid or is to be paid, indicate "none.")

xxxii) Binding Contract: We understand that this Tender, together with your written acceptance there of included in your Letter of Acceptance, shall constitute a binding contract between us, until a formal contract is prepared and executed;

xxxiii) Not Bound to Accept: We understand that you are not bound to accept the lowest evaluated cost Tender, the Most Advantageous Tender or any other Tender that you may receive;

xxxiv) Fraud and Corruption: We here by certify that we have taken steps to ensure that no personacting for us or on our behalf engages in any type of Fraud and Corruption; and

xxxv) Collusive practices: We hereby certify and confirm that the tender is genuine, non-collusive and made with the intention of accepting the contract if awarded. To this effect we have signed the "Certificate of Independent Tender Determination" attached below.

xxxvi) We undertake to adhere by the Code of Ethics for Persons Participating in Public Procurement and Asset Disposal, copy available from(*specify website*) during the procurement process and the execution of any resulting contract.

xxxvii) **Beneficial Ownership Information:** We commit to provide to the procuring entity the Beneficial Ownership Information in conformity with the Beneficial Ownership Disclosure Form upon receipt of notification of intention to enter into a contract in the event we are the successful tenderer in this subject procurement proceeding.

xxxviii) We, the Tenderer, have duly completed, signed and stamped the following Forms as part of our Tender:

a) Tenderer's Eligibility; Confidential Business Questionnaire - to establish we are no tin any conflict to interest.

(b) Certificate of Independent Tender Determination - to declare that we completed the tender without colluding with other tenderers.

(a) Self-Declarationo f the Tenderer - to declare that we will, if awarded a contract, not engage in any form of fraud and corruption.

(d) Declaration and commitment to the Code of Ethics for Persons Participating in Public Procurement and Asset Disposal.

Further, we confirm that we have read and understood the full content and scope of fraud and corruption as informed in **"Appendix 1 - Fraud and Corruption**" attached to the Form of Tender.
Name of the Tenderer: *[*insert complete name of person signing the Tender*]

Name of the person duly authorized to sign the Tender on behalf of the Tenderer: **[*insert complete name of person duly authorized to sign the Tender*]

Title of the person signing the Tender: [*insert complete title of the person signing the Tender*]

Signature of the person named above: [*insert signature of person whose name and capacity are shown above*]

Date signed [*insert date of signing*] day of [*insert month*], [*insert year*]
Date signed_____day of_____,_____
Notes
** In the case of the Tender submitted by joint venture specify the name of the Joint Venture as Tenderer.*
***Person signing the Tender shall have the power of attorney given by the Tenderer to be attached with the Tender.*

(a) **TENDERER'S ELIGIBILITY- CONFIDENTIAL BUSINESS QUESTIONNAIRE**

Instruction to Tenderer

Tender is in structed to complete the particulars required in this Form, *one form for each entity if Tender is a JV.* Tenderer is further reminded that it is an offence to give false information on this Form.

(a) Tenderer's details

	ITEM	**DESCRIPTION**
1	Name of the Procuring Entity	
2	Reference Number of the Tender	
3	Date and Time of Tender Opening	
4	Name of the Tenderer	
5	Full Address and Contact Details of the Tenderer.	1. Country 2. City 3. Location 4. Building 5. Floor 6. Postal Address 7. Name and email of contact person.
6	Current Trade License Registration Number and Expiring date	
7	Name, country and full address (*postal and physical addresses, email, and telephone number*) of Registering Body/Agency	
8	Description of Nature of Business	
9	Maximum value of business which the Tenderer handles.	
10	State if Tenders Company is listed in stock exchange, give name and full address (*postal and physical addresses, email, and telephone number*) of state which stock exchange	

General and Specific Details

(b) Sole Proprietor, provide the following details.

Name in full_____Age_____
Nationality_____Country of Origin_____
Citizenship_____

(c) Partnership, provide the following details.

	Names of Partners	**Nationality**	**Citizenship**	**% Shares owned**
1				
2				
3				

(d) Registered Company, provide the following details.

I) Private or public Company _____
ii) State the nominal and issued capital of the Company_____

Nominal Kenya Shillings (Equivalent).....
Issued Kenya Shillings (Equivalent).....

iii) Give details of Directors as follows.

	Names of Director	Nationality	Citizenship	% Shares owned
1				
2				
3				

(e) DISCLOSURE OF INTEREST - Interest of the Firm in the Procuring Entity.

i) Are there any person/persons in…… (*Name of Procuring Entity)* who has/have an interest or relationship in this firm? Yes/No……

If yes, provide details as follows.

	Names of Person	Designation in the Procuring Entity	Interest or Relationship with Tenderer
1			
2			
3			

(iii) Conflict of interest disclosure

	Type of Conflict	Disclosure YES OR NO	If YES provide details of the relationship with Tenderer
1	Tenderer is directly or indirectly controls, is controlled by or is under common control with another tenderer.		
2	Tenderer receives or has received any direct or indirect subsidy from another tenderer.		
3	Tenderer has the same legal representative as another tenderer		
4	Tender has a relationship with another tenderer, directly or through common third parties, that puts it in a position to influence the tender of another tenderer, or influence the decisions of the Procuring Entity regarding this tendering process.		
5	Any of the Tenderer's affiliates participated as a consultant in the preparation of the design or technical specifications of the works that are the subject of the tender.		
6	Tenderer would be providing goods, works, non-consulting services or consulting services during implementation of the contract specified in this Tender Document.		
7	Tenderer has a close business or family relationship with a professional staff of the Procuring Entity who are directly or indirectly involved in the preparation of the Tender document or specifications of the Contract, and/or the Tender		

REPUBLIC OF KENYA

MINISTRY OF LANDS, PUBLIC WORKS, HOUSING, AND URBAN DEVELOPMENT

STATE DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

BILLS OF QUANTITES

For

PROPOSED CONSTRUCTION OF THE UTALII COLLEGE STUDENT VILLAGE ACCOMMODATION IN NAIROBI COUNTY(WITH ASSOCIATED INFRASTRUCTURE AND AMENITIES)

TENDER NO.

MLPWHUD/SDHUD/AHP/497/2024-2025

Ministry of Lands, Public Works, Housing, and Urban Development,
State Department for Housing and Urban Development,
P.O Box 30119-00100
Nairobi, Kenya
Tel: +254-020-2713833

PROPOSED CONSTRUCTION OF THE UTALII COLLEGE STUDENT VILLAGE ACCOMMODATION IN NAIROBI COUNTY(WITH ASSOCIATED INFRASTRUCTURE AND AMENITIES)		
ITEM	**DETAILS OF SITE**	**PROJECT PARTICULARS**
1	**Tender No**	MLPWHUD/SDHUD/AHP/497/2024-2025
2	**Site location**	KENYA UTALII COLLEGE
3	**Site conditions**	FAIRLY FLAT
4	**Scope**	2 no. of hostel block (G+7); 290 no. of quad bed units (1160 PAX capacity) 4 no. of study rooms 4 no. of shops 2 no. office 4 no. of food stalls 2 No. Minimart 2 No. Laundromat Booths
5	**Auxiliary Facilities**	Guardhouse, garbage receptacles and a gate house
6	**External works**	Roads & parking, Civil works (sewer & Storm water reticulation), Underground water tank
7	**Built area in Square meters**	11,853 sqm
		MLPWHUD/SDHUD/AHP/497/2024-2025

GENERAL SPECIFICATIONS

SPECIFICATIONS

Reference is made to the General Specifications for Building Works (1976) by the Ministry of Works, Housing and Physical Planning.

A copy is available for perusing at the request of the procuring entity.

Contractors are required to adhere to the latest industry standards as outlined in the most recent version of KS (Kenyan Standards). Failure to comply may result in project delays or financial penalties. It is the responsibility of the Contractor to stay informed about and apply the current industry standards throughtout the construction process. Any disputes arising from non-compliance with updated standards will be subject to resolution through dispute resolution mechanism outlined in the contract.

PREAMBLES

BILL NO. 1: PREAMBLES

EXCAVATION AND EARTHWORK

Nature of Excavation

A The Contractor must ascertain for himself the nature of the materials to be excavated and price the work accordingly as no allowance will be made beyond the Contract Sum for any alleged ignorance in this respect.

Site Clearance

B. The Contractor shall clear the construction areas within the site of all bushes, roots, brush, boulders, natural obstructions, rubbish and any other natural or artificial obstructions which would interfere with construction of buildings, roads, paths and drains.

C. Clear away all anti/termite hills and nests over the area of the site, excavate for, locate and destroy queens.

D. Treat the cavity formed by the removal of the nest as described hereinafter under "Soil Sterilization" and backfill with approved material well rammed and consolidated in layers not exceeding 300 mm thick.

E. All areas of the site must be thoroughly proofed against rodents and special care must be taken to ensure that no unconsolidated areas are left near banks and ditches.

Commencing Levels

F. Unless specifically stated otherwise the commencing levels for excavation shall be deemed to be existing ground level or underside of reduced level excavation.

G. All measurements are based upon reduced level excavation being executed first and no adjustment will be made should a differing sequence of operations be adopted, unless specifically ordered by the Architect in writing.

Excavations

H. Excavations shall be to the widths and depths indicated the drawings or to such lesser or greater depths as the Architect may deem necessary and so instruct the Contractor in order to obtain satisfactory foundations.

J. Any difference in the quantity of works actually executed under such instructions and that provided in the Bills of Quantities shall be measured and valued by the Quantity Surveyor as a variation under the relevant Conditions of Contract.

A. If, however, the Contractor excavates to any greater depth or widths than are shown on the drawings or directed by the Architect, then the Contractor shall at his own expense fill in such extra depths and widths with concrete similar to that described for foundations to the satisfaction of the Architect.

Bottoms to Excavation

B. The Contractor shall report to the Architect as and when a secure bottom to the excavations has been obtained and the same is ready to receive concrete. Any excess depth unnecessarily excavated below the formation level shall be backfilled with and compacted as directed by the Architect and no payment shall be made for excess excavation or for the fillings & compaction

C. Any concrete or other work put in before excavations have been inspected and approved shall, if so directed, be removed and new work substituted after excavations have been approved all at the Contractor's expense.

D. If so directed, the Contractor shall water and well ram the bottoms of excavations to the satisfaction of the architect.

Measurement of Excavation Work

E. Excavation work is measured net as before digging and the Contractor must allow for increase in bulk after digging.

Trenches for pipes, cables kerbs, etc., other than drain pipes

F. Prices for excavation of trenches for pipes, cables, kerbs, etc., shall include for grading and ramming bottoms to the levels required, all necessary planking and strutting, carefully returning, filling and ramming selected excavated materials and for carting away any surplus materials.

Rock

G. Any rock or other hard materials encountered in excavating to the required depth which, in the opinion of the Architect, can only be removed by wedges or compressor plant shall be paid for as an extra and the price shall include for trimming and levelling. No blasting will be allowed. Hard compacted murram which can be removed by pick will not be classed as rock notwithstanding that the Contractor may decide to remove it by wedges or compressor plant.

H. The Contractor must give notification to the Architect or his representative when such material is encountered and its extent must be agreed with Architect or Quantity Surveyor or their authorised representative before the work is carried out. No allowance will be made for rock excavation unless the foregoing procedure has been followed.

Rates for Excavation

I The rates for excavation shall include for excavating by hand or machine in all types of materials except rock, as previously specified.

A. Excavations for plain concrete foundations have been measured to the **net sizes** required by concrete dimensions.

B. An allowance for working space and formwork has been measured to reinforced concrete foundation, but if the Architect's approval is given to pouring concrete against the face of the excavations these items will be measured and adjusted in the Final Account.

C. The rates for excavation must include for such excavating in all types of ground encountered including sand, murram, hard murram, tree roots and loose boulders.

Levelling

D. No item is measured for levelling and consolidating ground and rates for excavations must include for levelling and preparing the ground for concrete or other works including ramming or rolling.

Disposal of Water

E The Contractor shall keep the excavations free from standing water and silt (or excavated materials softened by water) and he shall include for the cost of pumping, construction of temporary drains, soakaway pits, etc., as deemed necessary to achieve this. An item has been included for this in the Bills of Quantities in each relevant section. The cost of pumping to dispose of any spring or running water has been covered by Provisional Sum. If spring or running water is encountered, the cost of any pumping ordered by the Architect will be paid for in accordance with the Dayworks Schedule.

Planking and Strutting

F. Sides of all excavations must be supported in order to prevent falls from or collapse of the earth face. The term "planking and strutting" is deemed to include any method or methods which the Contractor elects to adopt, uphold, protect and maintain the sides of excavations. The Contractor will be responsible for any consequences of his failure in this respect including clearing away fallen materials and any extra concrete or other works including formwork ordered by the Architect due to such failure. An item has been included in these Bills of Quantities in each relevant section.

Return, Fill in and Ram

G Material returned around foundations externally shall be selected hard, dry excavated materials arising from the excavations free from vegetable soil, roots and rubbish carefully filled in, spread, watered and compacted in layers not exceeding 200 mm thick. Backfilling internally shall be hardcore, or selected hard dry granular materials as above to approval.

H No excavations or foundation work shall be filled in or covered up until all measurements necessary for the adjustment of variations have been made. Walling shall not be built upon the foundations until four days after deposition of concrete.

Cart Away

A. All surplus excavated material, where so directed, and all rubbish is to be removed from the site and the Contractor is to find his own dump and pay all charges.

Approval Before Filling

B. No fill materials shall be placed before approval has been given by the Architect for filling to begin.

Measurement of Filling Generally

C. Filling is measured net as after consolidation.

Earth Filling

D. Levels specified to be made up with surplus soil, etc., are to be filled in with selected soil free from vegetable growth to the approval of the Architect and is to be laid in layers not exceeding 200 mm thick, each layer to be levelled, well rammed and consolidated and watered if necessary.

Hardcore Filling

E. Hardcore shall consist of clean hard broken stone or rubble graded to pass in all directions a 100 mm ring with sufficient sand added to fill the interstices. The hardcore shall be well packed, rammed and where possible, rolled with a heavy roller. Where rolling is impossible compaction shall be by hand or by mechanical tampers. Before any concrete is laid on hardcore, the hardcore shall be levelled and blinded with sand, rolled and well watered through a sprinkler rose.

Borrow Pits

F. No borrow pits will be allowed to be opened on the site

Soil Sterilization

G. Anti-termite treatment is to be carried out using one of the chemicals below and the Contractor will be required, upon completion of the soil sterilization, to furnish a written guarantee certifying the following:-

(a) That the chemicals applied comply with the requirements specified herein for chemical concentration and rates of application.

(b) That the treatment will remain effective against termite infestation for a period of five years.

(c) Application shall not be done whilst its raining or to surface of filling which are wet, and strictly in accordance to manufacturer's instructions

Soil Sterilization

A. The chemicals used shall be one of the following:-

5 Termicide A; 1 part to 45 parts water
7 Pentachlorophenol; 5% in oil solution
8 Trichlorobenzene; 1 part to 3 parts oil

B. Some of the chemicals listed above are toxic to animals and plant life and must, therefore, be applied only with caution by an experienced person. Where individual water supply systems are proposed, precautions must be taken to prevent infiltering and endangering the water supply. Treatment shall not be made when soils or fill is excessively wet or immediately after heavy rains.

C. Precautions must also be taken to prevent disturbance of the treatment by animals or human contact with the treated soil. The treated areas are to be covered as quickly as possible after treatment.

D. The rate of applications is to be 7 litres per square meter and the areas measured include those under floor and around wall and column foundations.

CONCRETE WORK

Code of Practice for Reinforced Concrete Work

A. All workmanship, materials and tests in connection with reinforced concrete work are to be conformity with B.S. Code of Practice B S 8110 : 1985 - The Structural Use of Concrete.

Generally

B. A competent person shall be employed whose first duty it will be to supervise all stages in the preparation and placing of concrete. All cubes shall be made and site tests carried out under his direct supervision.

C. All materials which have been damaged, contaminated or have deteriorated. or which do not comply in any way with the requirements of the specification, shall be rejected and shall be immediately removed from the site.

D. No materials shall be stored or stacked on suspended floors without the Engineer's prior approval.

Samples

E. Samples of all materials are to be submitted for approval of the Engineer at least one week before it is desired to commence deliveries. All condemned materials are to be removed from the site within 24 hours.

Cement

F. Cement used shall be ordinary Portland cement and shall be obtained only from manufacturers approved by the Engineer, and shall comply in every respect with B.S. 197-1. The Contractor at his own expense may use rapid hardening Portland Cement (to B.S. 197-1) in order to speed up progress of the Works. If rapid hardening Portland Cement is used, the prior approval of the Engineer shall be obtained in writing.

G. Each consignment of cement shall be accompanied by the manufacturer's certificate showing that a representative sample of the consignment has been tested and complies with the appropriate specification. From time to time as requested by the Engineer, copies of the cement manufacturer's test certificates shall be delivered to the Engineer or his representative on thesite promptly, but such documents shall not preclude the Engineer from rejecting any cement which does not in every way comply with the specification.

Cement Storage

H. The cement must be delivered in the manufacturer's sealed and branded bags and stored separately in dry, water-tight stores with their floors raised above ground level and shall be at all times carefully protected from moisture.

J The cement shall be stored in such a way that each consignment may be identified and used in the order of its delivery. Cement may be delivered in bulk containers provided additional suitable arrangements are made for bulk storage on site to the approval of the Engineer.

Inferior Cement

A. Any cement which has failed to pass the tests or has been damaged by water or contaminated in any way on site shall immediately be put into bags and removed from the site.

Aggregate

B. Aggregates shall be granite or other equal and approved obtained from an approved source and shall comply with B.S. 1260. They must be chemically inert, strong, hard, durable, free from adhering coating, salts, organic or other impurities and shall be washed or screened as directed.

Fine Aggregate and Sand

C. Fine aggregate and sand shall be clean, sharp, coarse, hard siliceous materials and equal at all times to the samples which shall be deposited with and approved by the Architect or Engineer. It shall comply with the requirements of B.S. 1260, Table 2, Zones 1,2 or 3. The caustic soda tests for organic impurities shall show a colour not deeper than that of the standard solution. The settling test for natural sand shall be made and after being allowed to settle for three hours the layer of silt deposit on the coarse materials shall not exceed 10% for crushed stone and 3% for natural sand or crushed gravel.

D. The Contractor shall supply all necessary equipment for testing of fine aggregate and sand for use of the Clerk of Works.

Coarse Aggregates

E. Coarse aggregates shall be granite from approved quarries, clean, free from earth and extraneous matter, and shall conform to B.S. 1260. The amount of fine particles occurring in a free state or as loose adherent shall not exceed 1% when determined by the laboratory sedimentation test.

F. After twenty-four hours in water, a previously dried sample shall not gain more than 1`0% in weight for crushed stone or 3% for natural sand or crushed gravel

G. The four nominal aggregate sizes shall be 40 mm (1.5"): 20 mm (.75"): 10 mm (3/8"): 6 mm (1/4") : and the grading when analyzed as described in B.S. 812 shall be within the limits given in B.S. 1260.

Aggregate Storage

A. Each grade of aggregate shall be stored in the works in separate heaps so that there shall be no possibility of any inter-mixing. Any materials which have become inter-mixed shall be removed from the site forthwith by the Contractor.

B. The materials shall be stored on a timber or concrete floor and the piles shall be as large as possible, flat topped and drained.

Water

C. All water used on the Works shall be clean, free from earthy vegetable and organic matter and from acidic and alkaline substances in suspension or solution. It shall preferably be obtained from the water mains of the Ministry of Water and Energy Department or Water Authority and shall be stored in proper water storage tanks to the approval of the Architect or Engineer. Any approved water shall be tested in accordance with B.S. EN 1008.

Admixtures

D. Admixtures of any kind for accelerating the setting of cement, plasticiser, hardeners, water proof etc., shall be used only if approved or specified by the Architect or Engineer.

Proportion of Concrete Mix

E. The quantity of cement shall be measured by weight and each batch of concrete is to use one or more whole bags. The quantity of fine aggregate and coarse aggregate shall be measured separately by weight in an approved weight batching plant. Volume mixing will not be permitted. The weight of damp aggregates must be adjusted to take into account the weight of water in the aggregates, and must be adjusted to take into account the weight of water in the aggregates, and this in turn will affect the amount of water to be added into the mix.

F. Throughout the carrying out of the Contract "Work Tests" are to be made from concrete drawn from newly laid concrete or concrete about to be placed in position, such cubes being made when directed by the Clerk of Works and in his presence. Such cubes shall be made in 150 mm or six inch cube steel or cast from mould and shall be marked and cured strictly in accordance with Appendices of the Code of Practice, and shall be forwarded carriage paid in time for testing at the required age to a testing laboratory to be nominated by the Architect or Engineer.

G. Six cubes shall be made on each occasion, and cured in compliance with B.S. 1881 Part 3, 1983 concrete for each cube being from a difference batch. Three cubes shall be forwarded in time for testing at the age of seven days from casting and three cubes in time to testing in twenty-eight days. Each cube shall be marked with the date of casting and a distinctive reference number in accordance with a system agreed by the Engineer. A record shall be kept of the position from which the concrete for each set of cube was drawn, or to which it was about to be placed.

Concrete Work Cont'd

A. At least three sets of six cubes shall be cast during each week concrete is being cast including sets of cubes for each quality of concrete used during the period.

B. Concrete is required to have the properties and give the strength in Newtons per square millimetre as set out in the table below which is to be considered as the minimum standard that will be accepted in the finished Works.

C. The workability of the fresh concrete should be such that concrete is suitable for handling, placing and compaction so that it surrounds the reinforcement, tendons and ducts and completely fills the formwork.

Grade	Quality	Maximum size of coarse agregate	Maximum Water Cement Ratio by weight of Aggregate	Minimum Crushing Strength of Works Test Cubes	
				7 days	28 days
30	1:1:2	20	0.45	30	36
25	1:1.5:3	20	0.55	21	26
25	1:1.5:3	10	0.55	21	26
20	1:2:4	20	0.60	14	21
20	1:2:4	10	0.60	14	21
15	1:3:6	10	0.60	-	12
10	1:3:6	10	0.60	8	10
7	1:4:8	40	0.60	-	7
-	1:10	All in Agregate		-	-

D. If the strengths required in the table are not attained and maintained throughout the carrying out of the Contract, the Contractor will be required to increase the proportion of cement or substitute better aggregate at his own cost so as to give concrete which does comply with the requirements of this Clause. The Contractor may be required to remove and replace at his own cost any concrete which fails to attain the required strength as ascertained by the Works Cube Tests.

Unsatisfactory Concrete Work

E. Should in the opinion of the Engineer any of the results of the specified tests of concrete or materials be unsatisfactory, the Engineer may order the work to be stopped pending his further instructions. Executed work for which test cubes are unsatisfactory shall be liable to rejection and, if so directed by the Engineer, the work represented by the tests shall be cut out and re-executed at the Contractor's expense.

A. In the case of seven day Works Cube Tests proving unsatisfactory, the work may be stopped, but shall not be liable to rejection until the result of the twenty-eight day test is known.

B. In the event of the results of the twenty-eight day Works Cube Tests proving unsatisfactory, the work represented shall be immediately liable to rejection. The Contractor may, however, be given the option of cutting three specimens from the completed work subject to the direction of the Engineer, and preparing therefrom test cubes or cores Tests in accordance with the requirements of Part 4 of B.S. 1881 Part 3, 1983.which shall be sent to the Testing Laboratory for testing as for Works Cube

C. Should the average strength of these specimens attain the specified minimum twenty-eight day strength, the work will, subject to the Engineer's discretion be accepted. Alternatively, the Engineer may instruct the Contractor to make a loading test as described hereinafter. The cost of all cutting, preparation of specimens, testing and making good the portions of the structure affected, shall be borne by the Contractor. The cost of all delays on site due to concrete not attaining the desired strength, or caused by investigation of defects, cutting away and making good, shall be entirely the Contractor's responsibility.

D. **Structural Test**

If, in the Engineer's opinion, there is a doubt as to the strength of a structure, solely or in part, for the reason that the site-made concrete cubes fail to attain the specified fail, the Contractor shall be reimbursed for the cost of the test. If the result of the test is not satisfactory, the Contractor shall bear the cost of the test and the cost of correcting any defects in accordance with the instructions of the Engineer.strength, or because of one or more circumstances attributable to alleged negligence on the part of the Contractor to make a loading test on the Works or any part thereof. The nature of the test and the loading shall be in accordance with Clause 605 of C.P. 114. If the result of the test is satisfactory, except where the test has been made because test cubes

E. **Formwork**

The formwork shall be so constructed as to remain sufficiently rigid during the placing compaction of the concrete and shall be sufficiently tight to prevent loss of liquid from the concrete. Vertical strutting shall be carried down to such construction as is sufficiently strong to afford the required support without injury. All rubbish, chippings, shavings and sawdust shall be removed from the interior of the forms before the concrete is placed, and suitable washout holes shall be provided to facilitate this, and the formwork in contact with the concrete shall be clean and thoroughly wetted and treated with the approved mould oil. Care shall be taken that such oil is kept out of contact with the reinforcement and shall be used a sparingly as possible. In no circumstances shall forms be struck until the concrete reaches a cube strength of at least twice the stress to which the concrete may be subjected at the time of striking, and in any case the minimum permissible times shall be as follows:-

Vertical sides of wall and columns	2 days
Sides of beams and lintels	2 days
Soffits of slabs (Subject to retention of props until 21 days	14 days
Soffits of beams and lintels (Subject to retention of props until 21 days)	14 days

A. No formwork is to be removed if, in the opinion of the Engineer, the concrete has not hardened sufficiently. Approval of the Engineer shall not relieve the Contactor of his liability to make good any concrete which may be damaged by premature removal or collapse of forms. Notwithstanding any other clauses in this specification the responsibility for the safe removal of the formwork rests with the Contactor.

B. All formwork shall be removed without such shock or vibration as would damage the reinforced concrete.

C. Forms shall be true to lines and levels and braced and strutted to prevent deformation.

D. Before placing of the concrete, bolts and fixings shall be in position and cores and other devices used for forming openings, holes pockets, recesses, ducts or other cavities shall be fixed to the shuttering.

E. Concrete shall not be poured in horizontal layers to a depth exceeding 1500 mm in formwork, except where prior approval of the Engineer has been obtained.

F. Formwork is measured to the actual net surface of the concrete to be supported and the Contractor shall allow in his prices for any waste, fixing at the various levels, straight cuttings, splayed edges, notchings, fillets to form chamfered arises, extra materials, joints, overleaves for angles, extra labour for narrow widths and small quantities, props, stays, struts, hangers, brackets, edges, wiring, bolts, and everything necessary to keep all quite firm and rigid, and any other labour and materials necessary to fix, ease, adjust and remove the formwork as described.

Normal Finish to Faces of Structural Concrete

G. After removal of shuttering, unless instructed to the contrary, the face of exposed concrete is to be rubbed down immediately to remove fins or other irregularities. In the event of parts of the concrete being honeycombed, such portions are to be cut to a depth and shape required by the Engineer and made up with fine concrete of equal quality in such a manner as shall be directed. The face of concrete for which shuttering is not provided, other than slab, is to be smoothed with a wooden float to give a finish equal to that of the rubbed-down surface where shuttering is provided. The top face of a slab which is to not intended to cover with other materials is to be levelled and floated before setting to a smooth finish at the level or falls shown on the drawings or elsewhere. The floating must be carried out in such a way as will prevent an excess or mortar being brought to the surface of the concrete. The top face of a slab intended to be surfaced with mortar, granolithic, or similar materials is to be brushed with a stiff broom while still green to remove any laitence © and to provide a roughened surface.

Fairfaced Concrete

A. Where so described or measured, faced of concrete shall be finished fair by means of formwork lined with approved waterproof plywood so as to produce a perfectly true surface and shall have all imperfections in the concrete face cut out, made good in cement mortar and rubbed down with carborundum stone and finally bag rubbed with cement slurry to finish to a high standard without trace of shuttering marks, joints or other disfigurements.

Wrought Boarded Face Formwork to give a Board Mark Finish

B. Where so described or measured, faces of concrete shall be finished fair by means of 100 mm or 150 mm (nominal) width tongued and grooved boarding of 25 mm (minimum) thickness.The edges of all boards shall be nominal 2 mm chamfer to form controlled fins.

C. Such formwork to column faces shall be of continuous length boards between construction joints.

D. End joints will be permitted to beams faces, etc., and shall be tongued, staggered and well distributed.

E. All imperfections shall be cut out and made good in concrete of equal quality.

F. The resulting concrete shall show grain and individual board marks, be free from honeycombing and excessive air holes, of uniform colour and to the entire satisfaction of the Engineer.

Wall Ties

G. Where blockwalls abut columns or solid concrete walls two 6 mm diameter steel reinforcing bar ties are to be cast into the concrete at vertical intervals of 400 mm. Ties to be 300 mm long and project 150 mm into blockwork.

Holes, Pipes Etc.

H. The Contractor shall be responsible for the co-ordination with sub-contactors for incorporating any electrical conduits pipes, fixing blocks, chases, holes, etc., in the concrete members as required. The Contractor shall submit full details of these items to the Engineer for approval before the work is put in hand. Concrete fixing blocks may be embedded in the concrete provided that the strength or effective cover of any part of the structure is not adversely affected nor the finished work damaged by any movement of the blocks. All fixing blocks, chases, holes etc.., to be left in concrete shall be accurately set out and cast with the concrete. No openings, chases, holes or other voids shall be cut or formed in concrete without the approval of the Engineer.

Blinding Concrete

A. No casting of any concrete on the ground shall take place until the ground has been passed as satisfactory by the Engineer. All ground to carry reinforced concrete shall be covered with a 50 mm minimum blinding layer of concrete 1:4:8. The cover for concrete under reinforcement shall be entirely above the blinding layer.

Mixing

B. Concrete is to be mixed in a batch mixer of approved type having a drum rotating about a horizontal or inclined axis. The speed of the drum is to be not more than twenty and not less than fourteen revolutions per minute. Each mixer is to be fitted with a water measuring device capable of accurate measurement to one gallon for one cubic yard mixers and pro rate for smaller sizes and so arranged that the accuracy is not affected by variations in the pressure of the water supply line.

C. The fine and coarse aggregate and the cement are to be mixed for at least four turns of the drum, after which the required amount of water is to be added gradually while the drum is in motion and the concrete then mixed for at least one and a half minutes and until a mix of uniform colour and consistency is attained.

D. The volume of concrete mixed in any one batch is not to exceed the rated capacity of the mixer.

E. The whole of the mixed batch is to be removed before materials for a fresh batch enter the drum.

F. On cessation of work, including all stoppages exceeding twenty minutes, the mixers and all handling plant are to be washed out with clean water.

G. Concrete mixed as above is not to be modified by the addition of water or otherwise in order to facilitate handling, or for any other purpose.

H. At least one slump test shall be made each day concreting is in progress under the supervision of the Clerk of Works. The slump shall not exceed 75 mm but at 25 mm slump may be allowed by the Engineer in certain structural members.

Transporting

J. Concrete is to be handled from the place of mixing to the place of final deposit as rapidly as practicable by the methods which will prevent segregation or loss of ingredients and maintain the required workability. It should be deposited as nearly as practicable in its final position to avoid rehandling.

K. Concrete shall be placed into the forms from as small a height as possible and shall in no case be dropped from a height of more than 1500 mm except with the approval of the Engineer.

A. When chuting is used, the inclination of the chute must be such as to allow the concrete to flow without the use of excessive water and without segregation or loss of the ingredients. Details of any proposed chuting plant must be approved by the Engineer before the plant is delivered to the site.

B. If the Contractor wishes to distribute concrete by means of pumps, full details of the system must be made available to the Engineer for approval.

Placing and Consolidation

C. The concrete shall be placed before setting has commenced and in any case within thirty minutes from the time the water is added, and must not be subsequently disturbed. Concrete shall be thoroughly compacted during the operation of placing, and thoroughly worked around the reinforcement, around embedded fixtures, and into corners of the formwork. Mechanical vibration with an approved type insertion vibrator shall be used.

D. The use of mechanical vibration will not relive the Contractor of his responsibility for making good work which may be damaged by excessive or ill-applied vibration.

E. All methods of placing and consolidation of the concrete are to be such as not to cause any disturbance or movement to the formwork or reinforcement. After being placed in position, the concrete is to be left absolutely undisturbed by any movements or thrusts while setting.

F. An accurate record is to be kept by the Contractor showing dates and times when various portions of the work were concreted. The concreting foreman must not vary the approved mix or water content without the permission of the representative of the Engineer. it may occasionally be found that in constructed structural members or where the proportion of reinforcement to concrete is high, the workability of the concrete must be increased locally in order to effect full compaction. Such increase in workability shall be achieved by an increase in the cement content of not more than 10% of the concrete by weight in any single batch and must be made only with the approval of the representative of the Engineer.

G. The workability of the concrete must never be altered by the use of additional water or sand alone.

Construction Joint

H. The form and location of all construction joints shall be approved by the Engineer before commencement of work.

A The Centering to form the stop shall be fitted with splay fillets on the concrete face and will be firmly fixed and scribed around the reinforcing steel. If any concrete shall flow past the stop, it shall be hacked off as soon as the concrete has set. Before any new concrete is placed up against the stopped face, the concrete previously placed shall be hacked and scoured with a wire brush to remove the scum. The joint shall then be soaked with water and covered with a sand cement mortar of proportions in the same ration in the concrete used. In all cases of application of mortar the punning must be adequate to incorporate the mortar in the body of the concrete. In no circumstances shall the concrete be allowed to finish at a break running down a rough slope. Such cases, if found, will be treated as contrary to the specification and the Contractor will be required to cut out the member and re-cast. In the case of horizontal joints, any excess water and laitence shall be removed from the surface after the concrete is deposited and before it has set.

B Before casting slabs the haunchings or seatings for the slab shall be thoroughly hacked, scoured and washed and covered with at least 5 mm of mortar immediately before the slab is cast.

C Slabs to be cast using alternate bay construction, maximum size of single panel 40 square meters.

Column Plinths

D Column kicker plinths 75 mm high not cast monolithically with the beam or slab will be allowed only at the discretion of the Engineer and special precautions must be taken if permission is granted, especially in regard to the quality of the mix used and the curing of concrete.

Curing

E The curing of the concrete must receive particularly careful attention. The concrete shall be covered with a layer of a sacking, canvas, hessian or suitable absorbent materials, and concrete, formwork and covering kept constantly wet for the first seven days after casting. Foundation concrete must be protected from falling earth and kept free from deleterious substances.

Dimensions of Finished Concrete

F Except where specially noted, dimensions, levels, sizes, positions, and covers are to be exactly as dimensioned or specified with the following tolerances for concrete cast in situ.

(a) For sizes of beams or columns, slab or wall thicknesses, not less than specified, nor more than 5 mm above. Dimensions between column faces not to have a greater tolerance than 10 mm.

(b) For layout positions or dimensions horizontal or vertical 5 mm plus or minus.

(c) Levels of floor, ceilings, beams, lintels, etc., (top and bottom), 5 mm plus or minus and no surface intended to be horizontal must slope more than 2 mm in 1 meter.

(d) Errors in plumbing 5 mm plus or minus, and no line or surface intended to be vertical must slope more than 2 mm in 1 meter.

(e) For cover of concrete around reinforcement 3 mm plus or minus.

Permissible tolerance shall not be cumulative.
Steel Reinforcement

A. Mild steel rod reinforcement shall comply with B.S. 4449.

B. High tensile steel rod reinforcement shall be hot rolled deformed steel complying with B.S. 4661 grade 460.

C. Welded steel fabric reinforcement shall comply with B.S. 4483.

D. The steel shall be stored so that it is kept clean and reasonably free from rust.

E. All metal for reinforcement is to be free from loose mill scale, loose rust, oil and grease, or other harmful matter immediately before placing of the concrete.

F. All reinforcement is to be placed and maintained in the positions shown on the drawings. Some definite method of ensuring the amount of cover required by the designer must be agreed between the Contractor and the Engineer.

G. Reinforcement must be bent or straightened in a manner that will not injure the materials, and in accordance with B.S. 4466.

H. All bars are to be bent cold.

J. Starter bars are to be positioned accurately.

K. All crossings of bars are to be securely wired.

L. Bars at the top of slabs are to have substantial support.

M. The prices of all rod reinforcement are to include for cutting to lengths and for all bending, hooked ends, etc., and for placing in position with distance pieces where necessary to ensure the rigidity of the bars and for tying together with approved wire in order to prevent displacement during concreting.

N. The placing of all reinforcement shall be checked by the Engineer and in no circumstances is concrete to be deposited around any steel that has not been passed. At least forty eight (48) hours notice shall be given to the Engineer that reinforcement will be ready for inspection.

O. Where bending schedules are provided, the measured weight of reinforcement for purposes of payment will be taken from the bending schedules and the Contractor must make due allowance in his rates for rolling margins and all the foregoing items and labour including cutting to waste from random lengths.

Cover to Reinforcement

A. The thickness of the concrete cover to reinforcement shall conform in all respects to the B.S. Code of Practice B. S. 8110 : 1995 unless specifically shown on the drawings. Some approved method of ensuring the correct amount of cover shall be used.

Spacing Blocks and Chairs etc.

B. Properly formed spacing blocks of concrete with wire ties or other approved means shall be securely wired or attached to the reinforcing bars to ensure the maintenance of the proper cover of concrete.

C. These shall be dense concrete left with a wire brushed surface or dipped in grout before fixing. These blocks are particularly important where the surface of the concrete is exposed to the weather or dampness. The Contractor must ensure that the bars are securely fixed so as to maintain their indicated positions during the progress or pouring, tamping or vibration of concrete. Four chairs per drop are to be provided around columns to hold steel in positions and chairs are to be made up of 12 mm diameter mild steel bars. The cost of all such fixing steel must be allowed for the Contractor in his rates for reinforcement generally.

Precast Concrete

D. Concrete shall all be cast in properly made strong mould to form shapes required. For work described as "finished fair" the mould shall be lined with sheet iron or other approved material.

E. The coarse aggregate for precast concrete shall be 10 mm gauge where 1:1.5:3 mix concrete is specified.

F. The concrete shall be of the mixes described and shall be thoroughly tamped in the mould and shall not be removed from them until seven days after placing the concrete, but the sides may be removed after three days providing the mould are such that the sides are easily removable without damaging the concrete.

G. The precast work shall be cast under sheds and shall remain under same for seven days in the mould and a further seven days after removal from the moulds. During the whole of this period the concrete shall be shield by sacking or other approved materials and kept wet. It shall then be removed from the sheds and stacked in the open for at least seven days to season.

H. All precast work shall be in lengths convenient for handling, unless otherwise described.

J. Prices for precast concrete shall include for all moulds, hoisting and fixing to the levels required, bedding and pointing in cement mortar (1:3) and for finishing exposed faces fair and smooth where so described.

WALLING

Setting out Walling

A. The Contractor shall provide proper setting out rods and set out all work on same for courses, openings, heights, etc., and shall build the walls and piers etc., to the widths, depths and heights indicated on the drawings and as directed and approved by the Architect.

Cement

B. Cement shall be described in Concrete Work.

Fine Aggregate

C. Fine aggregate for concrete blocks shall be as described for fine aggregate in Concrete Work.

Coarse Aggregate

D. Coarse Aggregate for concrete blocks shall be good, hard, clean aggregates from approved quarries. It shall be free from all decomposed materials and shall be graded up to 10 mm all as described for coarse aggregate in Concrete Work.

Concrete Block

E. Concrete blocks for walling shall be provided by the Contractor complying with B.S. 2028 Type A, and made in approved block making machines or a composition as follows:-

Portland Cement; 1 Cubic Meter
Fine Aggregate (graded up to 5 mm); 3 Cubic Meters
Coarse Aggregate (graded up to 10 mm); 6 Cubic Meters

F. Blocks shall be solid or hollow two-hole type as specified and are to be made under sheds erected by the Contractor to the directions and approval of the Architect. In hollow blocks of the volume of the cavities shall be not less than 45% and not more than 50% of the gross

G. The compressive strength Type A blocks shall be not less than:-

Average of 13 hollow blocks; 5.75 N/mm2 gross area
Lowest individual hollow block; 4.0 N/mm2 gross area

A. The concrete is to be put into the machine's moulds in thin layers and all properly tamped therein. On removal from the machines the blocks are to be carefully deposited on wet the whole time, after which they shall be put out in the open on racks and protected with the approved matting, sacking or straw and kept wet for a further five days, then kept in the same position and under the same mat cover, but without wetting, for a further two days and then left in the open without matting or wetting for a further seven wet the whole time, after which they shall be put out in the open on racks and protected with the approved matting, sacking or straw and kept wet for a further five days, then kept in the same position and under the same mat cover, but without wetting, for a further two days and then left in the open without matting or wetting for a further seven days to season. All blocks must be left with good sharp edges. The blocks for use in the Works shall be 190 mm high and may vary in length from 300 mm to 400 mm and no variation above or below these lengths will be allowed except where required to form proper bonding at corners, round openings, sills, lintels, beams, etc., and the like positions and the Contractor must make or cut blocks to all the varying sizes required for these purposes and include this in his price. days to season. All blocks must be left with good sharp edges. The blocks for use in the Works shall be 190 mm high and may vary in length from 300 mm to 400 mm and no variation above or below these lengths will be allowed except where required to form proper bonding at corners, round openings, sills, lintels, beams, etc., and the like positions and the Contractor must make or cut blocks to all the varying sizes required for these purposes and include this in his price.racks under sheds erected by the Contractor to the direction and approval of the Architect and there left for three days and kept thoroughly

Bonding Walling

B. The blocks shall be properly bonded together in such manner that no vertical joint in any one course shall be within 100 mm of a similar joint in the courses immediately above or below. Sufficient through bonders shall be provided as directed by the Architect. Alternate courses of walling at all angles and intersections shall be carried through the full thickness of the adjoining walls. All walling shall be built up entirely solid in blocks without void, allowance being made for joints 10 mm thick only. All perpends, reveals and other angles of the walling shall be built strictly true and square

Wall Reinforcement

C. Where so specified hollow block walls shall be reinforced vertically with 10 mm diameter mild steel bars built into the cavities of the blocks at 400 mm centres, unless otherwise specified, all bars in walls to have a minimum lap of 350 mm.

D. Prices for walling described as reinforced must include for all extra costs involved in slotting blocks over the vertical reinforcement.

Filling of Hollow Blockwork

E. All cavities where specified and shown above ground and all cavities below ground level shall be filled in solid with concrete of the mix described and placed and consolidated in sections not exceeding 1190 mm in height.

F. In reinforced walls the filling shall be carefully compacted around the reinforcement.

Blocks to be Wetted

A All concrete blocks and stone walling shall be well wetted before being laid and the top of walling where left off shall be wetted before re-commencing building. Walls to be kept wet three days after building.

Mortar

B Mortar to be used for all walling work shall be composed of 1 part of Portland Cement to 1 part lime to 6 parts of fine aggregate measured by volume in specially prepared dry on clean and watertight mixing platforms, with water added afterwards from a can with a fine rose until all parts are completely incorporated and brought to a proper consistency and then used within thirty minutes of mixing.gauge boxes and thoroughly mixed

C No partially or wholly set mortar will be allowed to be used or re-mixed.

Fair Face Walling

D Where walling is to be finished with a fair face, the concrete blocks are to be selected for freedom from defects and the joints raked out as the Works proceed and flush pointed with a neat joint in cement mortar.

Joints for Walling

E The blocks shall be bedded and jointed in cement mortar as described with beds and joints 10 mm thick, full flushed up and grouted solid as the work proceeds. Joints shall be raked out where the surfaces or walling are to be plastered.

F All walling shall be properly protected while mortar is setting as the Architect shall direct.

Building Walling

G All walls throughout the Works shall be carried up evenly in 12 mm course, no part being allowed to be carried up more than 800 mm higher at one time than any other part and in such cases the jointing shall

Putlog Holes

H Putlog holes shall be carefully, properly and completely filled up on completion of walling work.

Rough Cutting etc.

H. The Contractor shall allow in his prices for the walling which is measured net herein, for all ordinary rough cutting, bonding, plumbing angles, forming reveals and fitting up to under side of concrete beams, slabs and lintels etc.

Stone Pitching

A The ground to receive pitching shall be well compacted and the stones, which shall be flat bedded and not less than 230 mm either way along the bearing surface, shall be punned to the required falls and inclinations so that neither wedges nor spalls are required to keep the pitching rigidly in place. The joints shall be no more than 13 mm thick and shall be solidly filled with 1:3 cement mortar.

B Stone for pitching shall be coral obtained from approved quarries. It shall be hard, sound, durable and clean.

Stone for Walling

C Stone for walling shall be from an approved quarry, roughly square and built random and uncoursed in mortar as described. The stone shall be well bonded with a minimum of one good bond or through stone evenly spaced to each square meter. All cavities and joints in stonework are to be filled in and flushed up solid with mortar.

D Jointing and pointing is as detailed or instructed.

Precast Screen and Louvre Block Walling

E Precast concrete screen blocks shall be manufactured in concrete of 30.0 N/mm2 strength using 10 mm aggregate, the blocks shall be 390 mm and 190 mm long x 190 mm high and 150 mm on bed in accordance with detailed drawings and finished fair on all surfaces and bedded, jointed and pointed in cement mortar with a neat flush joint.

F Precast concrete louvre blocks shall be of similar concrete, similarly jointed and pointed and constructed to detail drawing.

Damp Proof Course

G Damp proof courses shall be hessian based bituminous felt to B.S. 743 Type 5A laid on and including a levelling screed of cement and sand and lapped 230 mm at joints.

ROOFING - ASPHALT WORKS

APPROVED SUPPLIER

A. All materials shall be supplied by a firm approved in writing by the Architect and the works executed by workmen approved by the supplier.

Guarantee

B. The Contractor shall deposit with the Architect, a written guarantee and undertaking to the effect that during a period of not less than twelve calendar months from and after the certified date of completion of the whole of the works the contractor shall at his own expense make good to the satisfaction of the Architect all and any defects in the asphalt work which shall be attributed to improper materials or faulty workmanship and shall bear the cost of any consequential damage as shall be provided for in such guarantee.

Samples

C. The Contractor shall when required by the Architect submit samples of any material for testing.

MATERIALS

Asphalt for roofing

D. Asphalt for roofing shall comply with B.S. 1162 tropicalised mastic asphalt for roofing purposes.

Felt underlay

E. The underlay shall be saturated "Cabro" sheathing felt complying with B.S. 1162 (or equivalent).

Insulating screeds

F. Insulating screeds shall consist of lightweight concrete composed of one part Portland Cement and eight parts vermiculite aggregate and shall be covered with 10 mm cement and sand (1:4) screed wood floated to receive asphalt coverings.

WORKMANSHIP

Preparation of surfaces

A. All surfaces to receive asphalt and other roof coverings are to be dry, wood floated and finished to suppliers specifications.

Laying

B. Asphalt and other roof coverings shall be laid in bays generally not exceeding 2 m wide and succeeding coats shall be laid at breaking joint. Junctions between bays and fillets shall be properly married the whole being worked so that the joints are neatly made.

C. Horizontal asphalt for roof coverings shall be 20 mm thick built up into two layers each 10 mm thick. The first layer shall be applied to sheathing felt and the final coat shall be left ready to receive roofing tiles.

Air pockets and stains

D. Air pockets and stains on the asphalt and other roof coverings will not be permitted and the finished work shall not ring hollow over any parts of its surface.

Joints and fillets

E. Joints in all asphalt work and other roof coverings shall be carefully made and complete fusion obtained to make them watertight. Fillets shall be run at all internal angles and in at least two operations. Perfectly watertight joints shall be made around pipes passing through walls and floors etc.

Felt underlay

F. The felt underlay shall be fixed and laid loose or partially bonded in hot bitumen with but joints.

Testing for falls

G. To ensure that asphalt and other roof coverings have been truly laid to falls, the contractor is to arrange for the roof areas and gutters to be flushed with water in the presence of the Architect. Any defects or depressions in the asphalt or other roof coverings are to be rectified and retested for approval.

CARPENTRY

Terminology

A. All technical terms shall be as defined in the "Timber Act (amended 2012)".

Timber Generally

B. The timber for carpentry and joinery shall be specified and obtained from an approved sawmill.

C. The timber for carpentry shall be Second or Select Grade for strength.

D. The timber shall be reasonably straight grained.

E. All timber for the Works is to be purchased immediately the Contract is signed and is to be open-stacked for as long as possible before use or kiln drying.

F. All timber as it arrives on the site shall be inspected by the Architect, and any timber brought on to the site and not approved must be removed forthwith.

G. All timber and assembled woodwork shall be protected from the weather and stored in such a way as to prevent attack by termites, insects or fungi.

Species of Timber for Structural Work

H. The following softwoods shall be used for structural work;

Standard Common Name	Botanical Name
Podo	Podocarpus
Cypress	Cuppressues Lusitanica

J. Both to be second strength Grade P5 or equivalent. Whilst either timber is suitable, intermixing of species will not be accepted.

K. The Contractor is permitted to propose substitute species but these shall not be used without the written approval of the Architect and no adjustment shall be made to the basic rates for softwood trusses in the event of a substitute species being accepted.

Insect Damage

L. All timber shall be free from live borer beetle or other insect attack when brought upon the Site. The Contractor shall be responsible up to the end of the maintenance period for executing at his own cost all work necessary to eradicate insect attack of timber which becomes evident, including the replacement of timber attacked or suspected of being attacked, notwithstanding that the timber concerned may have already been inspected and passed as fit for use.

Seasoning of Timber

A. All timber shall be seasoned to a moisture content of not more than 18% for carpentry and 15% for joinery. The Contractor's price must include for any kiln drying that may be necessary to achieve these figures.

Pressure Impregnation

B. The softwood described as pressure impregnated shall be treated with the "Celcure A" "Tanalith C" full cell process. Timber must be seasoned to a moisture content not exceeding 25% before being treated. The treatment shall be to the minimum standard of:-
Solution concentration; 2%
Absorption of preservative; 520 Litres per cubic meter
Net dry salt retention; 10.4 Kg per cubic meter

C. After treatment, the timber shall be seasoned to the specified moisture content.

D. Cut ends and faces of timber sawn, drilled and cut after treatment are to be swabbed liberally with approved preservatives until saturated, allowed to dry and then treated with a second coat and rates for timber must include for this. Approved preservatives are: Atlas A; Brunophan Nr 2; Cuprinol Clear or Water Repellant Clear; Ensele Woodtreat 55.

Inspection and Testing

E. The Architect shall be given facilities for inspection of all works in progress whether in workshops or on site. All timber as it arrives on the site must be inspected by the Architect and any timber brought onto the site and not approved by him must be removed forthwith, failing which he may arrange for the removal of the rejects and dispose of them as he may consider advisable at the Contractor's expense.

F. Notwithstanding approval having been given above, any timber incorporated in the Works found to be in any way defective before the expiry of the maintenance period shall be removed and renewed at the Contractor's expense. The Contractor is to allow for testing of prototypes of special construction units and the Architect shall be at liberty to select any samples he may required for the purpose of testing, i.e. for moisture content, or identification of species, strength, etc.

G. Where timbers need to be extended into a wall, they shall be thoroughly "brush treated" with Ensele in addition to preservative treatment as already described above, and as much clear air space maintained around the timber where it adjoins the wall as possible.

Clearing Up

H. The Contractor is to clear out and destroy or remove all cut ends, shavings and other woodwaste from all parts of the building and the site generally, as the work progresses and at the conclusion of the Work.

Workmanship

A. All carpentry shall be executed with workmanship of the best quality. Scantlings and boardings shall be accurately sawn and shall be of uniform width and thickness throughout.All carpenter's work shall be left with sawn surfaces except where particularly specified to be wrought.

B. All carpentry shall be accurately set out in strict accordance with the drawings.

C. All structural timbers shall be frame or jointed together as is most appropriate in the circumstances in accordance with the rules of good practice. Joints must be executed in strict conformity with the drawings.

D. All joints shall be secured with a sufficient number of nails disposed as shown on the drawings and rates must include for the jointing of timbers. Surfaces must be in good contact over the whole area of the joint before securing. Holes for nails must be pre-drilled undersize; holes for bolts must be bored slightly over size from both sides of the timber and washers must be used under the nut which must be tightened sufficiently to permanently secure the joint but not to crush the timber.

E. Actual dimensions of scantlings for carpentry shall not vary from the specified dimensions by more than 3 mm in deficiency or excess but must be uniform throughout. Boards 25 mm thick or less shall hold up to the specified size. All timbers shall be as long as possible and practicable, in order to eliminate joints.

Joints

F. All nails, screws, bolts, connectors, etc., are to be as specified under "Metalwork" and as shown on the drawings.

General

A. The provisions contained in the "Carpentry" section shall apply also to the Joinery Section where applicable.

Species of Timber

B. The following timber of First or Prime Grade for appearance shall be used for Joinery Work in conjunction with the term "softwood" or "approved softwood":-

Standard Name; Botanical Name

Podo (for grounds, etc., only); Podocarpus spp.

African Mahogany; Khaya Nyasica

Mninga, Pterocarpus Angolensis

Iroko (Mvula); Chlorophora excelsa

C. The following may also be used as "local hardwood" (referred to hereafter) with the Architect's approval:-
Adina; East African Afrormosia; East African Afzelia

Generally

D. All joinery work shall be accurately set out on boards to full size for the information and guidance of the artisans before commencing the respective works, with all joints, iron work and other work connected therewith full delineated. Such setting out must be submitted to the Architect and approved before such respective works are commenced.

E. **All joinery work shall be cut and framed together as soon after the commencement of the building as is practicable,** but not to be wedged up or glued until the building is ready for fixing same. Any portions that warp, wind or develop shakes or other defects within six months after completion of the Works shall be removed and new fixed in their place together with all other work which may be affected thereby, all at the Contractor's own expense.

F. All work shall be properly morticed, tenoned, housed, shouldered, dovetailed, notched, wedged, pinned, bradded, etc., as directed and to the satisfaction of the Architect and all properly glued up with the best quality approved glue.

A. Joints in joinery must be as specified or detailed, and so designed and secured so as to resist or compensate for any stresses to which they may be subjected. All nails, springs, etc., are to be punched and puttied. Loose joints are to be made where provision must be made for shrinkage; with glued joints where shrinkage need not be considered and where sealed joints are required. Glue for load-bearing joints or where conditions may be damp must be of the resin type. For non-load-bearing joints or where dry conditions may be guaranteed casein or organic glues may be used. All exposed surface of joinery work shall be wrought and all arises "eased-off" by planning and sand-papering to an approved finish suitable to the specified treatment.

Dimensions

B 3 mm reduction off specified sizes will be allowed for each wrought face except where described as (f) i.e. **finished** size in which case joinery shall hold up to the full dimensions. Dimensions of 25 mm or less shall hold up to the specified sizes.

Fixing Joinery

C All beads, fillets and small members shall be fixed with round or oval brads or nails well punched in and stopped. All large members shall be fixed with brass screws, the heads let in and pellated to march the grain where natural finish timber is specified.

Mastic

D Mastic where specified for bedding, joinery, sills, water bars, etc., is to be approved non-hardening plastic, phlysulphide synthetic rubber or butyl composition filler or sealer.

Fiberboard

E Fiberboard shall be "Celotex" or equal and approved.

Plywood

F Plywood shall be from an approved source and comply with B.S. 1455, first or second grade, as required and unless otherwise stated shall be "interior" quality. Where veneered plywood is specified, samples must be submitted for prior approval. Where stated to be "exterior" quality, this shall be waterproof (Bonding W.B.P.).

G Routine tests will be required from time to time to check the quality of manufacture. Plywood used in structural members shall be bonded with a suitable adhesive.

Chipboard

H Chipboard shall be approved medium density resin bonded wood chipboard equivalent to B.S. 2604 with sanded finish or thickness stated. Where faced with plastic sheeting the chipboard shall be counterbalanced.

Blockboard

J Blockboard shall be laminated board to B.S. 3444. Where faced with plastic sheeting the blockboard shall be counterbalanced.

Flush Doors

A. Flush doors shall be from an approved source and manufacture, be hollow / semi-solid core constructed generally in accordance with B.S. 459-2 finished with 6 mm veneer plywood (to Architect's approval) and lipped all round with softwood 12 mm thick.

B. The thickness stated is the overall finished thickness.

Plastic Sheeting

C. Plastic sheeting shall be Formica or equal and approved laminated sheeting 1.5mm thick fixed with an approved adhesive. All colours are to be selected by the Architect.

Plugging Walls

D. All work described as plugged shall be fixed with brass screws to plugs formed by drilling concrete, walls, etc., with a proper tool of suitable size at 500 mm spacings and filling the holes completely with an approved proprietary plugging compound used in accordance with the manufacturer's instructions.

Protect Joinery

E. All fixed joinery which, in the opinion of the Architect, is liable to become bruised or damaged in any way shall be completely cased and protected by the Contractor until the completion of the Works.

Bottom Edges

F. Bottom edges of doors shall be painted with one coat of approved primer before fixing .

Mosquito Screening

G. Mosquito screening shall be "Alcad" or equal and approved aluminium fine wire mesh screening.

Bird Screening

H. Bird screening shall be approved galvanized coffee tray wire.

Ironmongery

J. All ironmongery shall be fixed with screws to match. Before the woodwork is painted, handles shall be removed, carefully stored and refixed after completion of painting, and locks oiled and left in perfect working order. Prices for fixing locks must include for organizing masterkeying systems if required and all keys shall be labelled with door references marked on approved labels before handing to the Architect on completion.

STRUCTURAL STEELWORK

Standard of Construction

A. The whole of the structural steelwork and testing shall comply with the relevant clauses of B.S. 449, B.S 4360; 1980 and B.S. 5940 grade 43.

Fabrication by Specialist Firm.

B. The steelwork shall be fabricated by a specialist firm or under proper factory conditions to be approved by the Architect.

Contractor to Submit Drawings

C. The Contractor shall include for the preparation of all shop details from the drawing supplied by the Architect. All such details shall be approved in writing, by the Architect, before the work is put in hand. Every drawing shall show the number and sizes of all rivets and bolts, complete details of welds, type of electrodes, welding procedure, whether the welds are to be made in the shop or elsewhere and any other relevant information.

Accuracy of Drawings.

D. The Contractor shall be responsible for the correctness of his shop details and for shop fittings and site connections.

Erection Scheme

E. The Contractor shall submit to the Architect for approval, drawings showing the proposed erection scheme, together with all calculations for erection stresses, etc. The approval by the Architect will not absolve the Contractor in any way from his responsibility.

Dimensions to be Verified

F. The Contractor shall take the dimensions from the site or buildings and he shall verify all dimensions given on the drawings before the work is put in hand.

Copies of Orders

G. A copy of all orders for materials shall be supplied by the Contractor to the Architect at the time of ordering, for identification purposes.

Damage

H. Any damage to materials on the site due to inadequate precautions being taken during the erection of the steelwork shall be made good to the satisfaction of the Architect at the Contractor's expense.

Materials

Quality of Steel

A. (i) All structural and rivet mild steel shall comply with B.S 4360 Part 2

(ii) Nil

(iii) Nil

(iv) All structural steel tubes shall comply with B.S. 1775 and B.S. 449

(v) Mild steel and medium tensile steel electrodes for metal-arc welding shall comply with the requirements of B.S 2549.

(vi) High tensile steel electrodes for metal-arc welding shall comply with the requirements of B.S. 2549.

(vii) All mild steel bolts and nuts shall have a tensile strength of not less than 432 N per Square Millimetre (28 tons per square inch) and a minimum elongation of 17 percent as defined in Clause 2 of B.S. 916 or in B.S. 2708.

(viii) All high tensile steel bolts, nuts and washers shall have a minimum tensile strength of 570 N per square millimetre (37 tones per square inch).

(ix) High strength friction grip bolts and washers shall comply with B.S. 3139, Part 1.

(x) All plan washers shall be of steel. Tapered or other specially shaped washers shall be made of steel or malleable case iron complying with B.S. 3410.shall be made of steel or malleable case iron complying with B.S. 3410.

Marking of Steel

B. Each piece of steel shall be legibly marked with the maker's name or trade mark and with cast numbers or identification marks by which the steel can be traced to the cast from which it was made.

C. For rivet bars and small pieces securely bundled, a metal tag marked with the cast number will be sufficient.

Standard Dimensions

D. The dimensions and allied requirements of all structural rolled sections shall comply with B.S. 4. The dimensions, weight, tolerances etc., of all rivets, bolts, nuts, studs, etc., shall conform to the following standards. Rivets shall comply with the requirements of B.S. 275 for dimensions

E. Black bolts, nuts, studs, lock nuts and washers shall comply with the requirements of B.S. 916 for dimensions and with B.S. 1580 for unified black bolts etc.

A. Turned bolts shall have the shank turned to the specified diameter allowing only a minus tolerance up to 0.13mm (0.005 inch).

Weight of Steel

B. For the purpose of measurement, the weight of mild steel shall be as given in B.S. 648 which will be the basis for measurement of variations. The weights per meter given on the drawings do not include the shelf angles riveted to webs, nor the plates riveted to the flanges of R.S. Js or other sections.

Conditions of Surfaces

C. All surfaces of steel work shall be clean, free from loose millscale and loose rust.

Tests and Inspection

D. Manufacturer's Mill Test Certificates for all structural steel shall be supplied to the Architect as and when required. Where and when directed by the Architect, the Contractor shall take and deliver samples of structural steel for testing to the Employer's Highways and Transportation Testing Station. Should the results of either test be unsatisfactory the whole consignment of steel which the sample represents shall be rejected and shall be replaced by other material of proper quality at the expense of the Contractor.

E. The Architect or his representative shall at all reasonable times, be given free access to the Works.

Metallic Coatings

F. Galvanized steelwork shall comply with B.S. 729 Part 1 entirely coated with zincafter fabrication by complete immersion in a zinc bath in one operation and excess carefully removed. The finished surfaces shall be clean and uniform.

ii) Zinc sprayed steelwork shall comply with B.S. 2569 Part 1. The nominal thicknessof zinc coating shall be not less than 0.102 mm (0.004 inches) and at no point less than0.076mm (0.003 inches).

Generally

G. The whole of the fabrication and erection of the steelwork shall be carried out in accordance with B.S. 449

Materials (Cont'd)

A. The welding of steel to B.S. 1962 must conform to:B.S. 1856 - "General requirements for the metal-arc welding of mild steel"or B.S. 2642 - Are applicable."General requirements for the arc welding of steel to B.S. 968 and similar steel"

B. For welding any particular type of joint the Contractor shall provide evidence acceptable to the Architect that the welder has satisfactorily completed the appropriate tests as described in B.S. 5950 · 7

C. Any welder's tests shall be made at the Contractor's expense and shall include the cost of any fees incurred by the Employer for witnessing of, or making such tests.

D. The right is reserved to make non-destructive tests on the welding to determine if the welding conforms to the standards laid down in either B.S. 1856 or B.S. 2642 as applicable. This will normally consist of radiography on butt welds, ultrasonic examination of fillet welds or other tests as appropriate to the actual configuration of the weld in question.

Rejection

E. Any portion of the work which, in the opinion of the Architect, is not in accordance with the drawings, or specification shall be rejected whether before or after delivery and must be removed from the site if delivered within 24 hours from receipt of such notice or rejection at the Contractor's expense. Any delay caused by such rejection will not in any way relieve the Contractor from his responsibility with regard to the provisions of the Contract. If any welding is found to be defective the cost of all remedial measures shall be borne by the Contractor, including the cost of re-testing the subsequent inspection of welds as referred to in the P.C. Sum hereafter.

F. The Contractor is responsible for the good quality of all welding work and no exceptions will be made on the grounds that the Architect or his representative have inspected any part or parts of the work at some stage during production.

Fabrication

G. As much of the work of fabrication of the steelwork as is reasonably practicable shall be completed in the manufacturer's works. Field connections shall be made in accordance with the approved drawings. The Contactor shall give four day's clear notice of steelwork ready for inspection at the manufacturer's works, to facilitate inspection before delivery.

Cast of Temporary Erection, etc.

A. Trial erection of principal or other units may be called for at the discretion of the Architect or his representative.

B. The cost of any necessary temporary erection, testing, packing, marking, carriage and delivery is deemed to be included by the Contractor in the Tender price.

Joints and Connections

C. No variation of the number, type or position of the joints or connections shown on the drawings shall be made without the consent of the Architect. If such consent is desired the Contractor shall submit detailed drawings of the proposed joints for the approval of the Architect and no extra cost incurred by reason of such additions or alterations will be allowed to the Contractor.

Painting at Works

D. Where described as primed at works, steelwork shall be freed of rust, millscale, welding slag and flux residue and shall be dry immediately prior to painting with primer as Clause Q 14 a.

E. For joints with high strength friction grip bolts the contact surfaces shall be left unpainted but special care shall be taken after assembly to paint all edges and corners near the joints together with bolt head, nuts and washers to prevent the ingress of moisture.

F. For joints made with other bolts and rivets the contact surfaces shall each be given a coat of priming paint and for shop connections the contact surfaces shall be brought together while the paint is still wet.

G. For welded connections where the contact surfaces are not completed sealed the contact surfaces shall be painted to within 50mm of the edges that are to be welded.

H. The primer shall be touched up with similar primer if damaged by subsequent handling.

METALWORK

Mild Steel

A. Mild steel shall comply with B.S. 4360 Grade 1 and the sizes of all small sections shall be in accordance with B.S. 4 and 4A.

Galvanized Work

B. Iron and steel, where galvanized, shall comply with B.S.1461 Part 1 entirely coated with zinc after fabrication by complete immersion in a zinc bath in one operation and all excess carefully removed. The finished surface shall be clean and uniform.

Aluminium

C. Aluminium shall be of the alloys described in and shall comply with B.S. 485. Aluminium sheet for flashings shall be soft-temper, super purity (S1 or S1A) and not less than 20 s.w.g. (0.9mm) in thickness.

Smithying, Shearing and Cutting

D. All smithying, welding, cutting and bending shall be soundly and neatly executed, care being taken not to overheat. All flame cut edges and welds shall be neatly ground off on completion.

Bolts

E. Mild steel bolts, nuts and washers shall comply with B.S. 916 for black bolts with hexagonal heads and nuts. High tensile steel bolts and nuts shall be in accordance with B.S. 3139 Part 1.

Anchor Bolts

F. Anchor bolts in concrete for steel works etc., are to be self drilling anchor bolts of one of the following types:-

Phillips redhead concrete anchors
Rawlplug super drilanchor
Spit self-drilling anchors

G. Rates are to include for fixing complete with washer. Mortices in concrete have not been measured for this item.

Shop Inspection

A. The Architect shall be granted full facilities and any necessary assistance for inspection or materials and assembled parts in the Contractor's (or his Sub-Contractor's) workshops. At least two weeks notice shall be given to the Architect in writing prior to the despatch of finished components to the site to enable the Architect to inspect and approve the materials and workmanship at the workshops. Approval of work at the workshop does not relieve the Contractor of this obligations to carry out the work complete at the site to the Architect's satisfaction in accordance with the Contract.

Marking

B. All components delivered to the site are to be marked in paint with the Mark number in accordance with any shop and erection drawings.

Storage

C. All components are to be stored at the site in proper racks provided for the purpose which provide full support to each member to obviate any deflection and distortion. Steelwork is to be stored at least 25cm clear of the ground and temporary protection is to be provided for protection against water and damage from any other source.

Erection

D. Rates for all metalwork are to include for the complete for the complete erection including any temporary supports required and any necessary templates and wedges.

Painting

E. All steel is to be thoroughly de-rusted and degreased prior to despatch to the site and is to be given one coat zinc chromate primer at the works. Further painting treatment will be carried out at the site. Painting is measured separately and the cost thereof is not to be included in the rates for metalwork.

PLUMBING AND ENGINEERING INSTALLATION

Execution of the Works

A. The work shall be carried out strictly in accordance with:-

(a) "British Standard Code of Practice" C.P. 310: 1965: Water Supply
(b) "British Standard Code of Practice" C.P. 404: 1968: Sanitary Pipework above ground

(c) All other relevant British Standard Specifications and Codes of Practice
(d) Bye-laws of the Local Authority
(e) The working drawings

Extent of Work

B. The Contractor will be responsible for all below ground plumbing and drainage work and the installation of the Sanitary Fittings only, the remainder of the Plumbing and Engineering Installation will be executed by a Nominated Sub-Contractor.

Quality of Materials and Workmanship

C. All materials, equipment and accessories are to be new and in accordance with the requirements of the current rules and regulations where such exist, or in their absence with the relevant British Standard Specification.

D. Uniformity of type and manufacture of equipment or accessories is to be preserved as far as practicable throughout the whole work.

E. The Contractor shall, if required by the Architect, submit samples of materials to the Architect for his approval before placing an order.

F. If in these Preambles the practice is adopted of specifying a particular item as "similar" to that of a particular firm's product, it is to be clearly understood that this is to indicate the type and quality of the equipment required. No attempt is being made to give preference to the equipment supplied by the firm whose name or product is quoted.

G. Where particular manufacturers are specified herein, no alternative makes will be considered and the Architect shall be allowed to reject any other makes.

H. The Contractor will be entirely responsible for all materials, apparatus, equipment, etc., furnished by him in connection with his work, and shall take all special care to protect all parts of finished work from damage until handed over.

J. The work shall be carried out by competent workmen under skilled supervision. The Architect shall have the authority to have any of the work taken down or changed which is executed in an unsatisfactory manner.

Galvanized Steel Tubes and Fittings

A. Galvanized steel tubing shall comply with B.S. 1387 with plain galvanized malleable fittings complying with B.S. 143/1256.

B. Tubes and fittings shall be jointed by means of screwed threads to B.S. 21, by means of P.T.F.E., tape or hemp and "Bosswhite". All joints shall be perfectly smooth inside without excrescences.

C. Where sleeves are required for pipework passing through concrete, blockwork or below concrete slabs, they shall be galvanized steel tube or drain pipes of sufficient diameter to give at least 25mm clearance all round the water main.

D. Galvanized water mains below ground level or below slabs shall be double wrapped in "Denso" tape.

Brasswork

E. Stop valves shall comply with B.S. 1010 and shall be with crutch handles or loose keys where so described on the drawings. Draincocks shall comply with B.S. 2879.

Testing

F. Upon completion the whole of the water main shall be tested to a pressure not less than twice times the working pressure for a period of thirty minutes.

G. Notwithstanding the foregoing clauses, all water mains and fittings and installation thereof shall comply fully with the requirements of the Water Supply Authority.

Sanitary and Other Appliances

H. The appliances shall be fixed in the positions shown on the drawings or as described by the Architect.

J. The Contractor shall include in his rates for providing all necessary screws, bolts, etc., together with all jointing materials required and also for temporarily erecting and securing fittings in the required position or service and discharge pipes, taking down, storing and fixing after completion of wall finishings permanently fixing and connecting to service and discharge.

K. Care shall be taken at all times and particularly after fixing, to protect appliances from damage.

L. Upon completion of the work, all appliances shall be cleaned of plaster, paint, etc., and carefully examined for defects.

Fire Fighting Equipment

A. The specified fire fighting equipment shall be supplied and installed by the Contractor in the positions shown on the drawings

B. Portable fire extinguishers shall comply with the following British Standards:-

(a) Water type (soda acid); B.S. 138: 1948

(b) Foam type (chemicals); B.S. 740: Part 1: 1948

(c) Foam type (gas pressure); B.S. 740: Part 2: 1952

(d) Water type (gas pressure); B.S. 1382: 1948

(e) Carbon tetrachloride and chlorobromethane; B.S. 1721: 1960

(f) Carbon dioxide type; B.S. 3326: 1960

(g) Dry powder type; B.S. 3465: 1962

(h) Water type (store pressure); B.S. 3709: 1964

C. Fire hose couplings and ancillary equipment shall comply with B.S. 336: 1965; rubber reel hose shall comply with B.S. 3169: 1959.

D. Underground fire hydrants and surface box openings for same shall comply with B.S. 750: 1964.

E. The installation of hydrants and fire extinguishers shall be in accordance with C.P. 402:101: 1952 and C.P. 402 part 3: 1964 respectively.

F. If nothing else is specified, fire extinguishers and hose reels shall be supplied in the colour "fire red" and be similar to manufacture "ANGUS".

FLOOR WALL AND CEILING FINISHINGS

Sand

A. Sand for backing, floor and wall finishes is to comply with B.S. 13139, Table 1.

Cement

B. Cement is to be as described for "Concrete Work:.

Lime

C. Lime is to be no-hydraulic hydrated lime to B.S. 459 Class "A" obtained from an approved source and run into putty at least 24 hours before use.

Workmanship

D. All concrete beds or slabs shall be thoroughly brushed clean, hacked if necessary and well wetted and flushed over with a cement sand (1:1) grout immediately before screeds or pavings are laid.

E. Screeds and cement pavings shall be laid in accordance with the relevant B.S. Code of Practice. Working joints between bays of the floor finish should be placed in accordance with the Architect's instructions and will be plain butt joints placed over joints in the concrete bed under. Pavings shall be damp cured with sand or sawdust and kept damp for at least 7 days after laying.

F. All surfaces to be plastered or rendered must be brushed clean and well wetted before plaster is applied. Joints of walling shall be raked out and concrete hacked to form a key. Care shall be taken to see that paving and plastering do not dry out prematurely.

G. Adequate time intervals must be left between successive coats in two-coat work in order that the drying shrinkage of the undercoat may be substantially complete. All internal and external angles shall be pencil rounded.

In-Situ Pavings Generally

H. Before laying in-situ floor finishes, the concrete beds are to be thoroughly hacked for key, cleaned off, thoroughly wetted with clean water and coated with a stiff cement slurry and rates for screed, granolithic and terrazzo paving are to include for this. They are also to include for all necessary curing and protecting until the building is handed over.

Cement and Sand Paving

J. The cement and sand paving shall be in proportions of 1:4 by volume and incorporating or treated with an approved hardener.

Polished Granolithic Paving

A. The aggregate for granolithic paving shall be in accordance with B.S. 1201 and shall be mixed in the proportions of 1:1:1.50 cement, fine and coarse aggregate respectively. The mix shall incorporate an approved hardener suitable for incorporation and not for surface treatment. The water cement ratio shall be kept as low as possible and shall not in any case exceed 0.45.The paving is to be laid to the full thickness described and to be finished with a wood float and with no extra cement trowelled into the surface which is to be laid true and level. The paving is to be thoroughly cured after laying by covering with polythene sheeting and periodically watered to keep it moist for at least one week after laying. The surface is to be polished with approved rotary carborundum discs mechanically operated coarse and fine grain and with cement and sand slurry to produce a blemish-free surface.

B. The granolithic shall be laid in bays not exceeding 3.50 square meters with ebonite dividing strips for the full depth of the paving and shall be executed by Specialist who have a thorough knowledge of the work.

Polished Terrazzo Paving

C. The ins-Situ terrazzo shall consist of white or coloured cement and marble aggregate; the colours of the cement and aggregate shall be selected by the Architect. The mix shall comprise three parts of 6mm nominal aggregate to one part coloured cement by volume. The aggregate shall be clean and granular and shall not contain flaky particles or dust. The underbed shall be cement and sand 1:4 by volume.

D. The terrazzo shall be laid in bays not exceeding 3.5 square meters with ebonite dividing strips for the full depth of the terrazzo and underbed, and shall be executed by Specialist who have a thorough knowledge of the work.

E. The terrazzo topping shall be laid to a minimum of 12mm thickness in a plastic condition while the underbed is still green and this should be watered to minimise absorption from the topping. The terrazzo must be well tamped into position and rolled with a suitable hand roller. The topping should be allowedto take an initial set and then any surface voids must be grouted up with neat cement of the same colour used in the mix.The surface should be cured by keeping moist by covering with damp sacking for at least 72 hours.When dry and hard the surface shall be machine polished by grinding with carborundum or other stone discs of suitable grade and with rotary polishing pads.

F. Rates must include for all necessary protection until the building is handed over to the Architect. The depths stated are for the full depth including topping and underbed.

P.V.C. Flooring and Skirting

G. P.V.C. floor tiles shall comply with B.S. 10595. The tiles and accessories shall be supplied in the sizes and thickness specified in colours selected by the Architect and are to be fixed to the screed base with a suitable adhesive supplied (or recommended) by the Manufacturer and used in accordance with his instructions. Rates for floor tiles shall include for thoroughly washing and cleaning on completion and for the application of one coat of water based wax polish.

Brushed Terrazzo Rendering

A. Brushed terrazzo rendering is to comprise two coats as described. The undercoat shall consist of cement and sand mixed in the proportion of (1:4) by volume and applied to a minimum thickness of 10mm finished with a wood float and scratched to provide key for top coat. The finishing coat shall consist of one part white cement to two parts marble chippings or approved size applied to a minimum thickness of 10mm and the final surface wet brushed to expose the aggregate.

B. The Contractor will be required to produce a sample panel of rendering on site for the approval of the Architect.

Internal Plaster

C. Internal plaster shall be applied in two coats and adequate time intervals must be allowed between successive coats in order that the drying shrinkage of the undercoat my be substantially complete. The first coat must be well scratched, keyed and wetted to receive the finishing coat. The finishing coat shall be finished smooth with a steel float but care must be taken not to overwork the surface in order to minimize the incidence of shrinkage cracks. All internal and external angles shall be pencil rounded.

D. Internal plaster, unless otherwise described, shall be lime plaster of 12mm minimum overall finished thickness applied in two coats, the first coat consisting of cement, lime putty and sand mixed in the proportion of 1:2:9. The finishing coat shall be a skim coat comprising cement and lime putty in the proportion of 1:10.

E. Cement plaster is to be employed where specified on the drawings and is to be applied in two coats of approximately equal thickness to a total of 12mm minimum overall finished thickness. The composition of both boats shall be the same and shall comprise cement and sand (1:3) but a small percentage addition (not more than 10%) lime putty y may be permitted if the Architect considers that this will reduce the incidence of shrinkage cracks.

F. The Contractor shall cut out and make good all cracks, blisters and other defects and leave the whole of the plastering and rendering perfect at completion. When making good defects the plaster shall be cut out to a rectangular shape with edges undercut to form dovetailed key, and all finished flush with the face of surrounding plaster.

Marmoran Finishings

G. Prepare and prime surface, apply one coat 3 mm thick PVC Resin Bonded plaster with trowel, apply 3.2 mm thick stone chips with low pressure spray gun or by hand, roll flat by roller immediately after application. Colours and texture of the plaster and stone chips are subject to specifier's approval. Specifications must be strictly in accordance with manufacturer's instructions.

Wall Tiles

A. Glazed wall tiles shall be from an approved manufacturer and shall conform with the requirements of B.S. 1281. Tiles shall be white with slightly rounded or "cushion" edges and unless otherwise specifically described shall be size 150 x 150 x 6mm thick. Tiles shall be laid with continuous straight joint and internal angles shall be butt jointed. Rounded on edge tiles shall be used at all external angles and at edges of panels. Tiles shall be bedded in approved tiles adhesive and pointed in white cement.

B. Backing to tiles is to be cement and sand in the proportion of 1:4 rendering in one coat to a minimum thickness of 12mm trowelled smooth. Backings have been measured separately.

Carpet Tiles

C. Carpet floor tiles shall be from an approved manufacturer and shall conform to specification as per M/s Protex of South Africa. Graveltex Protex Carpet tiles shall be of heavy duty grade, 100% stain proof miracle fibre with density of 920, g/sq.m (fibre) and 4500 g/sq.m (total) with fire resistance (S.A.B.S) of 3, lavender colour. The size shall be 500 x 500 x 9.50mm thick. Tiles shall be laid with continuous straight joint. Tiles shall be bedded in approved tiles adhesive.

D. Beds to tiles are to be cement and sand in the proportion of 1:4 rendering in one coat to a minimum thickness of 30mm trowelled smooth. Backings have been measured separately.

Floor tiles

Porcelain tiles

E. Porcelain floor tiles shall be from an approved manufacturer and shall be of black polished, cocowhite polished or gardenia green matt. The size shall be size 400 x 400 x 10 x thick. Tiles shall be laid with continuous straight joint. Tiles shall be bedded in approved tiles adhesive.

F. Beds and backings to tiles is to be cement and sand in the proportion of 1:4 rendering in one coat to a minimum thickness of 30mm trowelled smooth. Beds and backings have been measured separately.

Laying of Marble, Granite, Porcelain or Ceramic Floor Tiles

G. Before laying the tiles, level the flooring area, ensure the surface is rough and clean.

Laying Floor tiles with Traditional Mortar

H. The cement thickness needed to lay tiles should be around 40 mm. The mixture for indoor is 1 volume of Portland cement and 3 volumes of sand. The mixture must be made with appropriate quantity of water in order to dampen the materials. Clean and wet the flooring area, making sure to leave completely clean. Spread the mixture and level with a ruler, in order to reach the 40 mm of thickness. Spread dry cement over the mixture, until the water that remains over the surface has been completely absorbed. Lay the tiles, already mixed from different boxes, with a wide joint and in the desired way. Wet tiles, then cover to achieve a perfect level.

Laying Floor tiles with Adhesive

A. The bed needed for this kind of laying, should be around 30 mm. The flooring area should be steel or wood trowelled and levelled. Spread the adhesive with a spatula with ridges. It is very important to lay a good quantity of adhesive so that there is no free space between the tiles.

Mixing the Colour Shades of Floor tiles

B. Before laying the tiles at least 5 to 6 boxes must be laid over a dry surface in order to ensure that the different shades have a uniform look. The best result is obtained this way.

The Joints of Floor tiles

C. The tiles have to be laid with a minimum of at least a joint separation between tiles of 3 to 10 mm.

Setting the Joints of Floor tiles

D. The cord or wire system can be used in the 4 or 5 joints, ensuring they are all parallel with the reference joint. Plastic crosses used for this purpose, in different sizes, can be obtained in specialized shops, giving a much better finishing and final result.

Filling the Joints of Floor tiles

E. Apply a mixture composed of 2 volumes of Portland cement and 1 of fine washed sand, with enough water in order to amplify the handing. There are suitable preparations for different uses and in different colours now available, so as to achieve the desired effects. Spread the substance by use of a rubber or plastic spatula. Clean the tiles before the mixture dries. After the joints are completely dry, wash with plenty of water several times.

Concrete Tiles

F. Concrete tile for finishing the roofs shall be 25mm thick of natural colour with bevelled top arises on all sides and shall comply with B.S. 1197. The tiles shall be laid to regular pattern with open joints. Care should be taken to ensure that the surface level is even and follows accurately the levels of the roof finish. All cement stains shall be carefully removed.

Precast Concrete Paving Slabs and Kerbs

A. Precast concrete paving slabs shall comply with B.S. 368. precast concrete kerbs shall comply with B.S. 340 figure 5 and shall be finished true and smooth on all exposed faces.

B. Precast paving shall be bedded on a compacted sand bed with 6mm wide joints filled and pointed with cement mortar coloured to match the colour of the slabs. The pavings shall be finished true and even and to the falls shown with no surface irregularities.

GLAZING

Method of Glazing

C. Notwithstanding reference in the descriptions of glazing method to glazing beads, or the like with associated fixings, and insulating strips, such components will be measured separately in accordance with the appropriate rules of the S.M.M.

D. The provision of glazing compounds and putties and springs, clips and other sundry fixings shall be deemed to be included with all items of glazing.

E. Distance pieces and setting blocks, in appropriate materials, shall be provided in accordance with good glazing practice and they shall be deemed to be included with all items of glazing.

MATERIALS

Glass generally

F. All glass shall comply in all respects with the appropriate section of B.S. 952. Plain sheet clear glass shall be O.Q.; plate glass shall be GG. All glass shall comply in all respects with the latest British Standards including the British Codes of Safety.

Putting for glazing to wood

G. Putty for glazing to wood shall comply with B.S. 544.

Samples

H. Samples not less than 150 mm square, are to be submitted to the Architect for approval before any glass is cut.

WORKMANSHIP

Glass to be kept free from moisture

J. All glass surfaces shall be kept dry during transit and storage. Glass becoming moist from condensation or other causes, shall be thoroughly dried and aired.

Rebates and beads

A. All glazing beads in wood shall be primed, (as measured in Painting and Decorating), before glazing is commenced.

Edges of glass

B. All glass shall have clean cut edges. The edges of louvres shall be rounded and polished.

Bead glazing

C. Glazing fixed by beads shall have both glass and beads bedded and back puttied, and the putty trimmed off flush. Where sealing strip is used, it shall pass round both faces of the glass and be trimmed off flush on both sides. Metal surfaces to receive sealing strip shall be treated with mineral oil before glazing.

Method of measurement

D. Beads and sealing strips have been measured separately. Prices for glazing with beads are to include for taking out and re-fixing beads as required, which shall be deemed to be bradded unless otherwise described.

PAINTING

Execution by a Specialist Firm

E. All work under this section must be executed by a Specialist Firm, approved by the Architect.

Approved Paints

G All paints shall be obtained from the same manufacturer and shall be approved by the Architect.

H The Contractor must allow for providing the Architect with colour charts from the approved firm and for executing sample panels as required.

Generally

I All materials shall be delivered on site intact in the original drums or tins and shall be mixed and applied strictly in accordance with the manufacturer's instruction and to the approval of the Architect.

J The only addition which will be allowed to be made locally will be liquid thinners and driers supplied or recommended by the manufacturers and none shall be thinned more than approved by the Architect.

Preparation

K All surfaces to receive treatment are to be clean and dry before paint application and surface irregularities are to be removed by filling or the use of suitable abrasives.

External Rendered Surfaces

A External cement slurry finished wall which are to be painted must be clean and must be thoroughly brushed and washed to remove any dust, loose flakes or other foreign matter and must be well wetted prior to the application of finish.

Plastered Surfaces

B Internal plastered surfaces which are to be painted are to be allowed to dry out thoroughly prior to paint application. All cracks and surface imperfections are to be cut back and filled with a patent filler in accordance with the manufacturer's instructions and rubbed down to a true and even surface.

Woodwork Preparations

C Large knots in woodwork are to be cut and replace with sound wood or scorched back and after priming the surface made good with stopping. All knots are to be treated with two thin coats of patent knotting free from resin. After priming, all nails holes and other imperfections shall be filled with stopping and the whole surface rubbed down to a smooth even finish. The stopping must be "Sadofill" or other approved make.

Woodwork - Fittings

D Unless otherwise specified, fittings are to be treated with two cots of linseed oil.

Metalwork

E All rust and loose scale on steel and iron work must be removed by wire brushing and rubbing with emery paper. Where patches of ingrained rust cannot be removed they are to be thoroughly rubbed down and treated with one coat of "Galvafroid" or other zinc rich paint in accordance with the manufacturer's instructions. One coat of zinc chromate primer will then be applied followed by two undercoat and one finishing coat of gloss paint as described for Woodwork above. The Contractor is tonote that where mild steel burglar bars are housed into wood frames, the full length or the bar is to be treated before fixing.

F Galvanized metalwork is to receive one coat of white spirit or mordant degreasing solution washed off prior to the application of calcium plumbate primer followed by two undercoats and one finishing coat of gloss as previously described.

G Galvanized metal work is to be painted only where instructions are given by the Architect as in some cases galvanized metalwork is to be left untreated.

DRAINAGE

Generally
Preambles to Other Sections

A The preambles contained in other sections of this document shall apply equally hereto where applicable, so far as is consistent with the clauses following.

Notices

B The Contractor shall give all requisite noticed. Uncoloured plans will be supplied by the Architect at the Contractor's request.

Drainage Bye-Laws

C All of the works shall comply with the requirements of the drainage bye-laws made by the Local Authority and shall be executed to the satisfaction of the Architect and Local Authority.

Inspections

D The Contractor shall give written notice to the Architect for the purpose of inspections and measurements, whenever section of:-

(a) excavations are completed

(b) concrete beds are laid

(c) drains are completed

and no further work shall be executed until each stage of the work has been inspected.

Levels of Existing Drains

E The Contractor shall check the invert levels of existing drains, sewer and manholes before laying new drains, and shall notify the Architect immediately if the declared invert levels are found to be inaccurate

Pitch Impregnated Fibre Drain Pipes, Couplings and Fittings

F Pitch impregnated fibre drain couplings and fittings shall comply with B.S. 2760.

UPVC Pipes and Fittings

G UPVC pipe and fittings shall comply with B.S. 3506 Class O to be obtained from a manufacturing source approved by the Architect in writing.

Spun Cast Iron Drain Pipes and Cast Iron Fittings, Gullies etc.

H Spun cast iron drain pipes shall be coated centrifugally cast (spun) iron pipes complying with B.S.1211 Class B.

A Fittings, gullies, etc., shall be of coated cast iron and shall comply with B.S. 1130.

Concrete Pipes and Fittings

B Concrete pipes and fittings shall comply with B.S. 556. They shall be reinforced, and of sulphate resisting cement if specified.

Manhole Covers and Road Gratings

C Manhole covers and road gratings and frames shall comply with B.S. 497.

Step Irons

D Step irons shall be galvanized malleable cast iron complying with B.S. 1247.

Mesh Reinforcement

E Mesh reinforcement shall be steel fabric complying with B.S. 1221 Part A or B.S. 4483.

Setting Out

F The Contractor shall set out all drains in accordance with the drawings, and provide all profiles, etc., necessary for the execution of the work.

Excavation

G The bottoms of all excavations shall be trimmed and consolidated to the correct levels. Unauthorized excavations below the required levels shall be filled with concrete of the same composition as for drain beds, at the Contractor's expense.

H Where the bottom is insufficiently firm, the Contractor shall excavate until, in the Architect's opinion, a firm bottom is obtained and the level shall be made up with concrete of the same composition as for drain beds. Particulars of such additional work shall be agreed with the Architect's representative before the work is covered up, otherwise no claim in this respect will be entertained.

Planking and Strutting

I Care shall be taken not to undermine the foundations of the buildings and, if so directed by the Architect, planking and strutting shall be left in, or other means adopted to protect the foundations. Details of such additional items shall be agreed with the Architect's representative before the work is covered up, otherwise no claim in this respect will be entertained.

Backfilling

J Trenches for pitch impregnated fibre of UPVC pipes shall first be filled with selected screened excavated materials carefully hand-tamped between the pipe and sides of the trench, followed by 150mm - 200mm of similar materials before the general filling is carried out.

A Trenches for concrete or cast iron drains shall first be filled to a depth of 300mm with selected fine materials carefully hand-packed around the pipe. On no account shall materials be tipped into the trench until first 300mm has been completed.

B Filling shall be continued in layers not exceeding 300mm thick, well rammed and, if necessary, watered.

Laying Drains

C Drains shall be laid truly straight on line and gradient with sockets upstream and the full bore shall be unobstructed.

Pitch Impregnated Fibre Drains

D All hard obstructions shall be removed from trench bottoms before laying pitch impregnated fibre pipes. The pipes shall be bedded in sand and laid and jointed in accordance with Appendix "C" to B.S. 2760.

UPVC Drains

E UPVC drain pipes shall be laid and jointed with solvent welded joints entirely in accordance with the manufacturer's instructions.

F Pipes shall be bedded in sand after all hard obstructions have been removed from trench bottoms.

Cast Iron Drains

G Cast iron drains shall be laid on concrete beds where specified or shown on the drawings and shall be jointed with gasket of hemp, well caulked, to a depth of 30mm for 100mm pipes and 40mm for large pipes, and remainder of the socket shall be filled with molten lead or lead fibre solidly caulked.

H Connection of iron to concrete drains shall be jointed as described for concrete drains.

I Cast iron drains fixed to walls or beams shall be supported on brackets at 1,350mm centres.

J Gullies, outlets, etc., on drains under concrete floors shall be set in position at correct levels before the floors are laid.

Concrete Drains

K Concrete drains shall be jointed with one turn of tarred gaskin, well caulked and the remainder of the socket filled with cement and sand (1:3), finished with an angle fillet around the pipe. All surplus mortar shall be removed from the inside of the pipe with a badger. Where pipes are sulphate resisting, the jointing mortar shall contain sulphate resisting cement.

Concrete Beds, Haunches and Coverings

A Where specified or shown on drawings, drains shall be laid on concrete, (105kg/sq.cm - 40mm aggregate), beds 100mm thick, 400mm wide for 100mm diameter drains and 450mm wide diameter drains. The concrete shall be haunched up both sides of the barrel to give lateral support.

B Where drains, other than cast iron drains, are laid under buildings or pavings carrying vehicular traffic, they shall be completely surrounded in concrete, (105kg/sq.cm - 40mm aggregate), 150mm thick, (i.e. 400mm x 400mm overall for 100mm pipes and 450 x 450mm overall for 150mm pipes). Where directed, drain beds shall be reinforced.

C Gullies shall be bedded and surrounded in concrete 105kg/sq.cm - 40mm aggregate minimum 150mm thick all round.

Sleeves

D All drains passing through walls or foundations shall have sleeves of cast iron pipe of sufficient size to allow a clearance round the drain.

Benching

E Benching in bottom of manholes shall be concrete (105kg/sq.cm - 40mm aggregate) to falls of not less than 10 degrees to channels finished with cement and sand (1:2), 25mm thick, trowelled hard and smooth with all angles rounded.

Bedding and Sealing Covers and Frames

F Frames to manhole covers shall be bedded in cement mortar (1:3), and the covers in grease and sand.

Testing

G All drains and manholes shall be tested for water tightness and straightness to the satisfaction, and in the present of, the Architects and the Local Authority. Drains shall be filled with water to a head of 1.50 meters and are to be tested in sections agreed with the Architect:-

(i) after jointing
(ii) after haunching and backfilling
(iii) after completion of the works

H The Contractor shall provide all necessary testing apparatus and shall carry out such other tests as are required by the Architect and the Local Authority.

Clean and Flush all Drains

I All drains, gullies, manholes, etc., shall be cored, cleaned and flushed on completion.

Method of Measurement

A Where not otherwise stated, the starting level for trench manhole excavation shall be:-

(i) the formation level in areas where the site is excavated to reduce levels.

(ii) existing ground level in areas where no excavation is required, or where filling is required.

B The depths of all the trenches in the following description lie within the same 1.5m stages as the average depths stated.

C Prices for excavating pipes trenches shall be deemed to include keeping them free from general water (i.e. all water except spring or running water).

D Notwithstanding the provisions of SMM Clause V.7 (a) to (c) the descriptions of excavating manholes, yard gullies, septic tanks and soakpits shall be deemed to include grading bottoms, planking and strutting, return filling and compacting, disposal of surplus soil and keeping excavation free from water.

E Prices for building pipes into manholes shall include for building in on rake where necessary.

F Prices for concrete beds, benchings and covering for pipes laid in trenches, shall be deemed to include for any necessary formwork. Formwork required for beds, etc., for pipes above ground, and for casing to vertical pipes, is referred to in the descriptions of such items.

G Prices for all gullies shall be deemed to include for all necessary excavation, return filling, disposal of surplus excavated materials, planking and strutting, and trimming and ramming bottoms.

EXTERNAL PAVINGS

Generally

A. The Preambles contained in other sections of the document shall apply equally to this sections so far as is consistent with the following clauses.

Materials

Soil for Planted Areas

B. Soil for planted areas shall be vegetable soil free from roots and rubbish and treated with weed killer to prevent the growth of weeds.

Sand for Filling under Footpaths

C. Sand for filing under footpaths shall be clean, dry, pit or river sand, free from vegetable soil, roots and rubbish.

Crusher Dust for Sub-Base Course of Macadam Paving

D. Crusher dust shall be from an approved source and shall be free from clay or other deleterious matter.

Stone for Base Course to Macadam Paving.

E. Stone for base course to macadam paving shall be 40mm gauge, clean and hard and free from clay or other deleterious matter.

Blinding For Stone Base Course

F. Blinding for stone base course shall be 4mm gauge hard stone chippings, free from clay, dust or other deleterious matter.

Precast Paving Slabs

G. Precast paving slabs shall comply with B.S. 368 except for sizes.

Kerbs

H. Precast concrete kerbs shall comply with B.S. 340, and shall be finished true and smooth on all exposed faces.

Prime Coat for Macadam Paving

J. The prime coat for macadam paving shall be bitumen grade M.C.I.

Bitumen for surfacing

A. The bitumen for surfacing shall be made 500/700 grade bitumen.

Workmanship

Generally

B. The sub-grade, sub-base and base courses for roads and parking area shall be prepared and laid at a convenient time before completion of the contract, as shall be agreed between the Architect and the Contractor, together with their kerbs and foundations.

C. The wiring course shall be applied at a later date, and prior to laying, the base course shall be made good in accordance with the requirements specified herein. The Contractor shall make good at his own expense any damage to kerbs.

Surveying

D. The Contractor shall verify all dimensions and levels prior to the commencement of work.

E. All surveying necessary for the accomplishment of the works shall be done by the Contractor at his own expense and he shall give notice of his intention to carry out such work in order that the arrangements can be made for supervision and checking. The Contractor shall also provide, without extra charge, all necessary instruments, appliances, labour and any other materials required for checking the survey work.

F. The Contractor shall make all necessary surveys using given bench marks as reference points. These bench marks he shall carefully preserve.

G. The Contractor shall draft, in accordance with these surveys, all plans and drawings which are necessary for the completion of the work, and shall submit these plans and drawings to the Architect for approval in writing.

Levels, Falls, Crossfalls and Cambers

H. The works shall be executed to the levels, falls, crossfalls and cambers shown on the drawings

Accuracy

J. The Contractor shall be responsible for ensuring that the works are carried out to the line, levels and dimensions shown on the drawings, and shall provide camber gauges and straight edges for checking to ensure that the surfaces are within the following tolerances:-

(a) **Sub-Grade** -

The camber or crossfall shall not vary more than 20mm from that shown on the drawings. In the longitudinal direction the variations from a 3 meter straight edge placed parallel to the centre line of the road shall not exceed 12mm.

(b) **Base**

The camber or crossfall shall not vary more than 12mm from that shown on the drawings. The variation on the longitudinal section shall be as above for sub-grade

Sub-Grade

A. The sub-grade shall be shaped to the required falls and cambers and any depressions filled with approved materials having a minimum C.B.R. of 8 percent. This value shall be obtained at optimum moisture content and compacted to 100 percent of the maximum dry density as determined by B.S x1377. The Contractor shall carry out standard compacting tests on the sub-grade in accordance with Test Nr 10 of B.S. 1377. Such tests shall be taken at 30metre intervals. The standard of compaction required shall be 98 percent of the maximum dry density as determined by Test No. 9 of B.S. 1377.

B. The sub-grade shall be approved by the Architect before any materials to be used in construction of the carriageway are deposited or laid.

Sub-Base Course

C. The sub-base shall consist of a layer of crusher dust finishing to the thickness specified after compaction. The bed shall be watered as necessary and rolled to produce a smooth and uniform surface with no irregularities.

Base Course

D. The base course shall consist of a layer of stone in which the interstices shall be filled by application of crusher fines after the stone is in place, to finish to the thickness specified after compaction. The base course shall not be blinded with crusher fines, but with 4mm gauge stone chippings to provide a clean hard surface. If any irregularities develop, they should be corrected by loosening the material at these places and adding or removing material and recompaction until the surface is smooth and uniform with no irregularities.

Application of Bitumen

E. The plant used by the Contractor for transporting, heating and spraying bitumen shall be in suitable rubber-tyred units and shall ensure adequate and uniform heating without the introduction of steam or moisture, and giving rise to the cooking or burning of the bitumen, and shall be fitted with a thermometer and heating control. Distributors shall be equipped to provide a constant rate of application per square meter of surface and there shall be visible speedometer indicating the speed of the vehicle in meters per minute.

A. Spray bars shall be capable of spreading the bitumen evenly to the full width of the work. The bitumen shall be heated to the temperature specified below and sprayed on the clean surface of the base at the rates specified.

B. Application temperatures shall be in accordance with those recommended by the manufacturer, or where this information is not available, they shall be as follows:-

Bitumen Grade	Sprayed Temperature (Degree Celcius)
N.C.I	54-80
500/700	124-149

Prime Coat

C. Prior to the application of the prime coat, the surface of the base shall be swept clean of dust and foreign materials to the satisfaction of the Architect. Approximately 30 minutes before applying the bitumen the surface of the base shall be lightly sprayed with water.

D. The prime coat shall be applied at the rate of 0.70 litres per square meter.

Wearing Course

E. After the application of the priming coat, and where directed and approved by the Architect, the Contractor shall lay bitumen type 500/700 spread at the rate of 3 square meters per 5 litres immediately followed by spreading dry, clean approved 12mm chippings at the rate of 130 square meters per cubic meter, rolled six to eight passes of a six to eight tonne roller. A second and similar surfacing layer shall be laid at the end of the defects liability period.

F. Alternatively, where specified, the wearing course shall consist of a premix macadam carpet of 500/700 grade bitumen and approved quality aggregate graded and mixed together prior to laying in the proportions and by the methods given in B.S. 1621 table 4, laid to finish to the thicknesses shown after compaction. The compaction shall be achieved with six to eight passes of a six to eight tonne roller.

Wet Weather

G. No bitumen spraying shall be carried out when either the carriageway surface of the aggregate are wet, without the prior approval, in writing, of the Architect who may allow such work to proceed by the use of an approved adhesive agent at the Contractor's expense

Murram Roads

H. Murram roads shall be laid in layers not exceeding 150mm compacted thickness, to finish compacted to the thicknesses shown on the drawings.

J. Each layer shall be watered, rolled and compacted as previously described herein to produce a smooth dense surface free of all irregularities.

Laying Precast Paving Slabs

A. Precast paving slabs shall be bedded on a sandbed compacted to the thickness specified with 6mm wide joints, filled and pointed with cement mortar coloured to match the colour of the slabs and recessed 5mm deep. The paving shall be finished true and even to the falls shown on the drawings with no surface irregularities.

Grassing

B. Grassing shall be carried out by a Specialist using approved local grass. Prices for grass shall include for tending, watering, cutting and keeping weed free for a period of twelve months, to produce a dense and healthy weed free grass carpet.

Note:
The Contractor shall include here for any cost they may consider necessary and over and above costs which they believe they cannot recover in any other section of these Bills of Quantities.

PRELIMINARIES

ITEM	DESCRIPTION	AMOUNT
	BILL NO. 1	
	PARTICULAR PRELIMINARIES	
A	**PARTIES**	
	The **Employer** is: Principal Secretary, Ministry of Lands, Public works,Housing and Urban Development, State Department of Housing and Urban Development P.O Box 30119 -00100 NAIROBI, KENYA The **Engineer** is: The term "Engineer" wherever used in these Bills of Quantities shall be deemed to imply the Engineer as defined in Condition 1 of the Conditions of Contract or such person or persons as may be duly authorised to represent him on behalf of the Government . **The Architect is:** The term "Architect" wherever used in these Bills of Quantities shall be deemed to imply the Architect as defined in Condition 1 of the Conditions of Contract or such person or persons as may be duly authorized to represent him on behalf of the Government .	

ITEM	DESCRIPTION	AMOUNT
A	**LOCATION OF SITE** The site of the proposed works is located in **Kenya Utalii College**, **Nairobi County** The Contractor shall be deemed to have visited the site and satisfied himself as to:- **a)** The nature, position, topography and access of the site **b)** The amount of the rubbish or debris to be cleared away before commencement. **c)** The nature, current usage, proximity and size of adjoining property and buildings **d)** The availability of land for the erection and positioning of all temporary structures, plant and materials necessary for the execution of the works. The Contractor shall obtain approval from the relevant Local Authority in adherence to site access and erection of temporary structures and must ensure all matters relating to the requirements of these authorities. No claim will be allowed for travelling or other expenses which may be incurred by the Contractor in visiting the site or preparing the tender for the works.	
B	**EXISTING SITE CONDITIONS** The Contractor is advised that the site is in a predominantly residential area and all measures should be taken to avoid nuisance to neighbours. All occupation health and safety requirements must be met as required by law. This includes prevention and or minimizing noise, dust, fumes e.t.c. Notices should be given prior to disruption of services	
C	**SCOPE OF CONTRACT** The Works under this contract comprises of the structures as detailed in the project data sheet	
	Carried to collection	

ITEM	DESCRIPTION	AMOUNT
A	**DESCRIPTION OF THE WORKS** The construction comprises reinforced concrete foundations, masonry walling, reinforced concrete beams, column , staircases and suspended solid slabs, roof construction. The exterior facade consists of steel casement windows, steel and timber doors , render and paint finish, clay and stone facing finish to walls The interior works includes timber doors and finishes which are generally plaster and paint to walls, ceramic and non slip ceramic tiles to floors and walls. External works generally comprise of foul water drainage, storm water drainage, pathway, dryline area, septic tank, underground water tank. All mechanical / electrical services and other specialist works associated with the above works shall be executed by domestic/nominated sub contractors approved by the Engineer **CONTRACT PARTICULARS**	
B	**FORM OF CONTRACT** The Contractor will be required to enter into a contract with the Employer under the **Terms and Conditions of Contract as "Standard Tender Document for Procurement of Works (Building and Associated Civil Engineering Works) Issued by the Public Procument Regulatory Authority in February 2021 (updated 2022)** and in association with the latest applicable version of the Public Procurement and Asset Disposal Act. The Contractor's attention is called to the appendix of the conditions of Contract and additions and amendments thereto, which shall be read as incorporated herein and he shall allow any sums which he considers necessary for the observance of such conditions, together with sub clauses used in application. The prioirity of such documents shall be as stated in the conditions of agreement.	
	Carried to collection	

ITEM	DESCRIPTION	AMOUNT
A	LIABILITY AGAINST INJURY TO PERSONS AND PROPERTY Insurance against injury to persons and property NOTES In addition to the conditions of the contract and the requirement contained herein the contractor's all risk policy shall cover the full value of the following and allow for all costs thereof:- i) The works and temporary works erected in performance of this contract. ii) The materials on site, plant and tools iii) The cost and expense of removing debris of the property insured, destroyed or damaged by any peril insured. iv) Professional fees (to be allowed at 15% of the contract sum) v) Employer's liability (workman's compensation) ii) Third party (Public liability for an indemnity of not less than shs 15,000,000 for any accident or series of accidents arising from the same event (unlimited in aggregate) The contractor shall ensure that all sub-contractors effect and maintain such insurances as are necessary to cover their liabilities in respect of injury to persons and property and workman,s compensation. Should the contractor already hold annual insurances covering the whole of his activities, and the indemnity required under the existing policy/ies then further insurances shall be effected and maintained to cover such excess, the policies of insurances being suitably endorsed to cover this project	
B	Insurance of the works (contractors liability) The Contractor shall insure as required in the Conditions of Contract. No payment on account of the work executed will be made to the Contractor until he has satisfied the Engineer either by production of an Insurance Policy or and Insurance Certificate that the provision of the foregoing Insurance Clauses have been complied with in all respects. Thereafter the Engineer shall from time to time ascertain that premiums are duly paid up by the Contractor who shall if called upon to do so, produce the receipted premium renewals for the Engineer's inspection.	
	Carried to collection	

ITEM	DESCRIPTION	AMOUNT
	PERFORMANCE BOND	
A	**Performance bond for the works**	
	The Contractor shall submit on the Form of Tender an approved bank or approved (By PPRA) Insurance Company and who will be willing to be bound to the Employer in an amount .....(*as defined in the bidding documents*)..... for the due performances of the Contract up to the date of completion as certified by the Engineer and who will when and if called upon, sign a Bond to that effect on the relevant standard form as seen in the CONTRACT STANDARD FORMS (without the addition of any limitations)	
	And should the surety fail to be approved, the Contractor shall furnish within seven days another Surety to the approval of the Employer.	
	Note that no payments on account of works executed will be made to the Contractor until he has submitted the Performance bond, duly stamped signed and sealed by an approved bank or insurance company.	
B	POSSESSION AND COMMENCEMENT	
	The Contractor shall take possession of the site on the date indicated in the acceptance letter. The date of commencement of the works shall also be communicated to the Contractor and the contract period shall run from the commencement date.	
	The Contractor is expected to utilize the period between possession and commencement to mobilise his resources to ensure smooth running of the works from the commencement date.	
	Carried to collection	

ITEM	DESCRIPTION	AMOUNT
	PROJECT SUPERVISION	
A	The said works shall be executed under the direction and to the entire satisfaction of the Engineer and Clerk of works who shall have the Engineer's specifically delegated authority and shall at all times have access to the works, to the yards and workshops of the contractor or other places where goods are being prepared for the building.	
	LABOUR CAMPS	
B	The contractor will generally be permitted to house labour on site subject to approval by Architect	
	DOWNTAKINGS	
C	All materials arising from demolitions and downtakings are deemed to be the property of the employer. No claim will be entertained on account of employer excising this right to retain the materials	
	All downtakings shall be carefully removed, taken down, dismantled and stored on site until instructed by the Engineer to remove from the site. Such materials shall only be incorporated in the new works if required by the Engineer in which case appropriate adjustments will be made in the final account for the cost of labour, screws etc for fixing such downtakings in the new works.	
	BIOMETRIC INSTALLATIONS	
D	Supply, Deliver to site, Install, test and commission a biometric and RFID card reader that supports RS485 and TCP/IP. supports both 125kHz & 13.56MHz, finger, card and pin authentication complete with Wiegand Interface, 12-digit Keypad,Power Supply unit c/w batteries, RFID Proximity ID Cards, Workstation and all necessary cabling and infurstructure required for a complete installation to Engineers approval. Allow for full graphic customization and programming of the installed system into the existing access control system	
	Carried to collection	

ITEM	DESCRIPTION	AMOUNT
A	**CCTV INSTALLATION** **Deliver to site, Install,test and commission the following as described below:** Supply, Deliver to site, Install, test and commission a CCTV installation during the construction period for monitoring and socio-economic data collection as per engineer's specifications. System should include but not limited to remote monitoring capabilities and atleast 30 days cloud storage, IP66, IK10 Bullet Network Camera 4MP resolution, H.265, H.264, MJPEG codec supported, Multiple streaming, Motion detection, Tampering, Defocus detection, micro SD/SDHC/SDXC memory slot (Max. 128GB), PoE / 12V DC, IR viewable length 20m (QNO-7010R), 25m (QNO-7020R) 30m (QNO-7030R), Warranty 3 years, 8 Channel Network Video Recorder, Maximum 12-megapixel camera supported complete with storage and all neccessary active and passive devices, cabling, back up power and accessories required for a complete installation.	
B	**DAMAGES** Damages for delay in completion shall be levied at the rate of Kshs .....(Refer to the special Conditions of Contract).....	
C	**OTHER PRELIMINARIES** Allow for any other item necessary to execute the works and state them below; .... **Carried to collection**	

ITEM	DESCRIPTION	AMOUNT
	BILL NO. 1	
	PARTICULAR PRELIMINARIES	
	COLLECTION	
	Carried from page 1/1	
	Carried from page 1/2	
	Carried from page 1/3	
	Carried from page 1/4	
	Carried from page 1/5	
	Carried from page 1/6	
	Carried from page 1/7	
	Particular Preliminaries Carried to Summary of Bill No. 1	

ITEM	DESCRIPTION	AMOUNT
	BILL NO. 2	
	GENERAL PRELIMINARIES	
	PRICING OF ITEMS OF PRELIMINARIES AND PREAMBLES	
A	Whenever in the Contractor's priced Bills of Quantities no price appears against an item of Preliminaries or Preambles or work items , the value of such item shall be deemed to be included in his prices for other items in the Bills of Quantities.	
	SUFFICIENCY OF TENDER	
B	The Contractor shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his tender for the works and of the rates and prices stated in the priced Bills of Quantities. Rates and prices quoted shall cover all his obligations under the contract and all the matters and maintenance of the works	
	RECORDS	
C	The Contractor shall ensure proper records are kept and maintained for : Daily Reports on Personnel and Machinery; tracked programme; weather charts/reports; site instruction book and query book,a digital camera shall be provided for taking progress photos The contractor shall be required to provide equipment for taking ground and aerial photos or videos in relation to the progress of works when called upon to do so.	
	DEFINITIONS AND ABBREVIATIONS	
D	Throughout these Bills, units of measurements and terms are abbreviated and shall be interpreted as follows: mm shall mean millimeter lm shall mean linear meter sm shall mean square meter m^2 shall mean square meter cm shall mean cubic meter kg shall mean kilogramme N shall mean Newton KN shall mean KiloNewton	
	Carried to collection	

ITEM	DESCRIPTION	AMOUNT
	in/" shall mean inches L f shall mean linear foot s f shall mean square foot c f shall mean cubic foot L b shall mean pound avoirdupois No. shall mean number B.S.M shall mean both sides measured K.S. shall mean current Kenya Standard specification published by the Kenya Bureau of Standard, P.O. Box 54974. NAIROBI, Kenya. 'As described' shall mean as described in these Bills of Quantities. 'As before described' shall mean the whole of the previous description except as qualified in the current one.	
	Carried to collection	

ITEM	DESCRIPTION	AMOUNT
	SITE LEVELS	
A	Before commencing work the Contractor must arrange for and agree with the Architect, Engineer and Quantity Surveyor the existing site levels and similarly establish and agree on a bench mark. The Contractor shall provide a surveyor to ensure all levels are achieved as per the drawings and Architects/Structural Engineer's instructions	
	SETTING OUT	
B	The contractor shall set out works in accordance with the dimensions and levels shown on the drawings and shall be responsible for the correctness of all dimensions and levels set out by him and he will be required to amend all errors arising from inaccurate setting out at his own cost and expenses. In the event of any error or discrepancy in the dimensions or levels marked on the drawings being discovered, such errors or discrepancies must be reported by the Contractor to the Engineer for his immediate attention. No work shall be commenced by the Contractor until he has received written instructions from the Engineer to adjust such discrepancies which may be proved, upon receipt of such instructions and no claim for extra expenses or relief from the provisions of Clause 5 of the Conditions of the Contract , any discrepancy or error in the dimensions or levels shown on the drawings may be made thereafter. The Contractor shall give the Engineer reasonable notice of the intention to set out or take levels for any part of the Works so that arrangements may be made for checking the work. The accuracy of setting out and leveling shall be within the tolerances specified in the Specifications or on the Drawings. The checking of setting out or leveling by the Engineer shall not relieve the Contractor of his duties or responsibilities under the Contract.	
	MEASUREMENTS	
C	Measurements are based on **Standard Methods of Measurement of Building Works and Associated Civil Works For Eastern Africa (SMM) Second Edition 2008.** In the event of any discrepancies arising between the Bills of Quantities and the actual works, the site measurements shall generally take precedence.	
D	**GENERAL SPECIFICATIONS** All works to be carried out in accordance with the Ministry of Roads, public Works and Housing **General Specifications for Building Works issued in 1976** or as qualified and amended.	
	Carried to collection	

ITEM	DESCRIPTION	AMOUNT
	SAMPLES	
A	The contractor shall furnish at the earliest possible opportunity before work commences and at his own cost any samples of materials or workmanship that may be called for by the Engineer for his approval or rejection until such samples are approved to be the acceptable standard for the work to which they apply. The samples shall be maintained and displayed on a designated section within the site for the duration of the project where practical and possible.	
	PROTECTION OF EXISTING PROPERTY	
B	The contractor shall take every precaution to avoid damage to all existing property including boundary wall, carpark, roads, cables, drains,staircases, lift etc including other services and he will be held responsible for all damages hereto arising from the execution of his contract and he shall make good all such damages when directed at his own expense. Any damage or disturbances caused to any element shall be reported immediately to the Engineer and the relevant Authority and shall be made good to their satisfaction at the Contractor's expense.	
C	**PROTECTION / RELOCATION OF EXISTING SERVICES** Prior to commencement of any work the Contractor is to ascertain from the relevant Authorities the exact position, depth and level of all existing electric cables, water pipes and all other services in the area and he shall make whatever provisions may be required by the authorities concerned for the support and protection and/or relocation of such services as will be necessitated. The contractor is also expected to generate a utility management plan to the approval of the Engineer . Any damage or disturbances caused to any service shall be reported immediately to the Engineer and the relevant Authority and shall be made good to their satisfaction at the Contractor's expense.	
	Carried to collection	

ITEM	DESCRIPTION	AMOUNT
A	**MATERIALS, TOOLS, PLANT AND SCAFFOLDINGS** All materials and workmanship used in the execution of the works shall be of the best quality and description. Any materials for the works condemned by the Engineer shall immediately be removed from the site at the Contractor's expense. The Contractor shall be responsible for the provision of all materials, scaffolding, tools, plant, transport and workmen required for the works except in so far as may be stated otherwise herein and he shall allow for the provision of the foregoing except for such items specifically and only required for the use of Nominated Sub-contractors as described herein. No timber used for scaffolding, formwork or similar purpose shall be used afterwards in the permanent works. All such plant, tools and scaffolding shall comply with all regulations whether general or local in force including Environmental,Social, Health and Safety (ESHS) policies throughout the period of the contract and shall be required as may be necessary to comply with any amendments in or additions to such regulations The Contractor shall keep on the site and maintain in good condition one dumpy or quickset level, metric leveling staff and one 30 metre steel tape for the use of the Architect, Surveyor and Engineer. The contractor may be required to provide an appropriate tower crane as required during the project life. Where a crane is provided, it should meet all regulatory and technical standards, all licences in connection with erection, usage shall be at the Contractors expense. The contractor may be required to provide an appropriate tower crane as required during the project life. Where a crane is provided, it should meet all regulatory and technical standards, all licences in connection with erection, usage shall be at the contractors expense. **Carried to collection**	

ITEM	DESCRIPTION	AMOUNT
A	**LOCAL REGULATIONS AND BY-LAWS** The contractor is to comply with all local regulations and by-laws of the Local Authority including serving notices and paying of fees where applicable. These include, but not limited to: National Environmental Management Authority (NEMA), National Contruction Authority (NCA), Water Resources Authority (WRA) The Contractor will be held responsible for serving on the Chief Inspector of Factories a written notice not later than seven days after the beginning of the building operations included in this contract stating the particulars required. **TRANSPORT TO AND FROM THE SITE**	
B	The Contractor shall include in his prices for the transport of materials, workmen etc to and from the site of the proposed works at such hours and by such routes as are permitted by the Authorities. All unit rates for local or imported goods are to include freight, insurance, handling and delivery costs to the project site together with import duties, sale tax, port charges etc and all other charges of whatever nature.	
	Carried to collection	

ITEM	DESCRIPTION	AMOUNT
A	**FAIR WAGES** The Contractor shall pay rates of wages and observe hours and conditions of labour not less favourable than the minimum conditions of employment applicable in the area in which the work is carried out. The relevant notice must be posted up and kept posted upon the site where it can be conveniently read by the employees concerned in languages they can understand. The Contractor is to comply with the regulations of Wages and Conditions of Employment Act, Building and Construction Industry Wages Council and is to be responsible for compliance of the sub-contractors employed in the execution of the contract. If required he is to notify the Engineer of the names and addresses of all such Sub-contractors. Any Contractor or Sub-contractors not complying will not be permitted to tender for other work for such a period as the Engineer may determine Should a claim be made to the Engineer alleging the Contractor's default in payment of fair wages to any workman employed on the contract and if proof thereof satisfactory to the Engineer, may failing payment by the Contractor, pay the claim out of any monies due or which may become due to the contractor under this contract. The Contractor is to furnish to the Engineer, if called upon to do so, such particulars of the rates of wages, hours and conditions of labour referred to above as the Engineer may direct	
B	**SECURITY OF WORKS** The Contractor shall be entirely responsible and shall pay security of all works, stores, materials, plant, personnel etc both his own and sub-contractors and shall also provide all necessary watching, lighting, and other precautions as necessary to ensure the security, the safety and protection of the public. He is to ensure that there is no informal business settlement near the establishment.	
	Carried to collection	

ITEM	DESCRIPTION	AMOUNT
A	**OCCUPATIONAL HEALTH AND SAFETY MEASURES** The Contractor shall be required to adhere to strict safety measures. In this regard the Contractor should ensure that all his workers, the Consultants and his sub-Contractors workmen are wearing Personal Protective Equipment (PPE) before commencement of any work where applicable including overalls with the **"BOMA YANGU, AFFORDABLE HOUSING PROGRAMME'** clearly printed on the back each with clearly marked Identification Numbers stitched or imprinted on. The Artwork to be provided for by hte State Department of Housing and Urban Development. The Contractor shall allow for providing all watching, lighting, green netting, barriers, signs, covering open trenches and protection of the works, including Sub-Contract works, as may be necessary for the safety of the works and for the protection of the public and his own and Sub-Contractors' employees. He shall also ensure provision of a certified and qualified safety, health and environmental officer, access to ambulance services at all worksites and arrangement to access a local hospital/dispensary with qualified medical staff. The contractor shall take cognisance and shall fully adhrere to the regulations of the **Occupational Safety and Health Act of 2007** including all the associated revisions The Engineer shall expect full compliance to this regulation and no excuses will be entertained for non-compliance which may lead to suspension of works until the issue is addressed satisfactorily.	
B	**PUBLIC, PRIVATE ROADS AND PAVEMENTS ETC** The contractor will be required to make good at his own expense any damages he may cause to the present approach and surrounding road surfaces during the period of the works	
C	**POLICE REGULATIONS** The contractor is to allow for complying with all Government Acts, orders or regulations in connection with employment of labour and other matters related to the execution of the works. The Contractor must acquit himself duly with current acts and regulations, including police regulations regarding the movement, housing, security and control of labour, labour camps, passes for transport, etc..	
	Carried to collection	

ITEM	DESCRIPTION	AMOUNT
A	AREA TO BE OCCUPIED BY CONTRACTOR The area of the site which may be occupied by the Contractor for use as storage and for the purpose of erecting workshops etc shall be defined on the site by the Engineer	
B	PROGRESS SCHEDULE Immediately after signing the contract the Contractor is to prepare a Time Progress Chart showing the time and order in which he proposes to carry out the works within the total construction time stated in the contract. The chart will show in detail the construction time and order in which each section of the work is to be carried out and be sub-divided into trades and tasks. If the contractor proposes sectional completion of the project he must plan this in detail including access roads, and services and this shall be reflected on the chart Upon the letting of the Sub-Contractors work the Contractor is to incorporate times and details of each separate Sub-Contractor work which information is to be agreed by the Sub-Contractor and the chart will be so designed to accommodate this infantine. At the end of each week the Contractor is to mark on the chart in a different colour the actual time taken to complete the respective stages and sections of the work. The contractor shall obtain the Engineer's approval on the chart and then shall supply copies to the Engineer and Quantity Surveyor If at any time it should appear to the Engineer that the actual progress of the works does not conform to the approved programme progress schedule the Contractor shall produce at the request of the Engineer a revised programme showing the modifications and accelerations to the approved programme necessary to ensure completion of the works within the agreed contract period. The submission of and approval by the Engineer of such revisions and accelerations shall not entitle the Contractor to any extra payment or extension of time and shall not relieve the Contractor of any duties or obligations or responsibilities under the contract	
	Carried to collection	

ITEM	DESCRIPTION	AMOUNT
A	**WORKING HOURS AND OVERTIME** The contractor shall allow for 24 hour working shifts if required to adhere to the predetermined contract period. The work shall not be carried unless under direct permision of NEMA as allowed for in the NEMA By Laws. All working hours must conform to the requests of the statutory authorities The Contractor shall be responsible for any extra costs for overtime working he considers will be necessary in order to complete the works within the contract period or time for completion apart from overtime working which may be authorised by the Engineer If overtime is worked out in accordance with a written instruction issued by the Engineer the contractor will be reimbursed in respect of such overtime to the unproductive time payable over and above the basic hourly rates as laid down by the Regulation of wages and Conditions of employment Act, Building and Construction Industry Wages Council and excluding any bonuses, profits and overheads.	
B	**WATER** The contractor shall provide at his own risk and cost all water for use in connection with the works including the work of sub-contractors make arrangements with the local authority for the installation of a separate meter where applicable and possible for all water used by him throughout the contract and pay all costs and fees in connection therewith. He shall also provide temporary storage tanks and tubing etc as he may consider necessary and clear away at completion. The contractor is to provide clean drinking water at the construction site for his workers at all times. All water shall be fresh, clean and pure, free from earthly vegetable or organic matter, acid or alkaline substance in solution or suspension.	
C	**TELEPHONE** The contractor shall provide in the office, from the commencement to the completion of the works, a wireless or mobile phone and shall pay all charges or airtime necessary for its use	
D	**LIGHTING AND POWER** The contractor shall provide at his own risk and cost all temporary artificial lighting and power for use on the works including all sub-contractors and specialists requirements and including all temporary connections, wiring, fittings etc and clearing away on completion. The Contractor shall pay all fees and obtain all permits in connection therewith.	
	Carried to Collection	

ITEM	DESCRIPTION	AMOUNT
A	**TESTING** Allow for all expenses in connection with the testing of materials as specified hereunder including the supply and preparation of materials to be tested, the cost of materials and their packing and conveyance to the nearest approved Testing Laboratory, laboratory charges, etc. The following items of tests will be measured according to the number of tests actually called for by the Engineer but unsuccessful tests will not be included in the remeasurement. Allow for executing the following tests as detailed in the Appendices to these Bills of Quantities (PROVISIONAL)) Water Test .....(litres) Sand Test .....(m3) Aggregate Test .....(m3) Reinforcement test (1m of mild steel rod or high tensile steel bar of various sizes) ..... Concrete Test (each test comprising ..... cubes as described hereinafter) ..... Testing of concrete or stone blocks of various strengths in accordance with Kenya Standard Specification (one test comprising ..... blocks)	
B	**PRICING RATES** The tenderer shall include for all costs in executing the whole of the works, including transport, replacing damaged items, fixing, all to comply with the said Conditions of Contract.	
C	**RESOURCE ALLOCATION PLAN** The Contractor shall prepare a resource allocation schedule in line with the progress schedule. This shall include a breakdown of labour, equipment and materials among others. The labour shall be broken down to include the number of skilled, unskilled and supervising teams that shall be required per task. The contractor shall incorporate the resources required by the subcontractors including but not limited to labour, equipment and materials. The Contractor shall continuously track the resources allocation plan and issue reports on the same. If at any time it should appear to the Architect that the actual progress of the works does not conform to the approved resource allocation plan and the progress schedule, the Contractor shall produce at the instructions of the Architect a revised resource allocation plan showing modifications and accelerations to the plan to ensure completion of the works within agreed contract period and within the agreed contract period and cost.	
	Carried to collection	

ITEM	DESCRIPTION	AMOUNT
A	**TEMPORARY STRUCTURES** a) The Contractor shall allow for providing and clearing away on completion of the works such temporary hoarding , rubbish chutes, gates, planked walkways, guard rails etc. as may be necessary for the protection of the workers, the general public, and for the proper execution of the works. b) As such, temporary structures shall be constructed with the approval of the Engineer and to his full satisfaction and in such a manner as to cause minimum intrisiveness and disturbance to occupants of adjacent developments and users of the adjacent roads. c) All such temporary structures shall comply in all aspects with the national laws, rules, and regulations currently in force and applicable to such structures. d) All temporary structures shall be erected in a manner so that the unloading of materials causes minimum obstruction to the use of adjacent roads and other facilities e) All temporary structures shall be kept properly lighted throughout the periods of darkness and any corners or projections shall be painted white. g) Temporary structures shall not be used or permitted to be used for advertisement purposes except with the written consent of the Engineer h) All temporary structures shall be maintained at all times in good order and good condition to the satisfaction of the Engineer. i) All temporary structures shall be removed when so required by the Engineer or at the end of the period for which it is required. j) The Contractor shall indemnify and shall keep the employer idemnified against any expenses, loss, claim or suits arising out of or in connection with the temporary structures.	
	Carried to collection	

ITEM	DESCRIPTION	AMOUNT
	SITE OFFICE	
A	The contractor shall supply, maintain, service, clean and light a fully furnished, suitable office having an approximate floor area of not less than 200sqm. The office shall have a sample room suitable dimensions with clean running water and electricity connected to the approval of the Engineer. The Contractor shall provide offices, messrooms and all other buildings required by the Contractor for his own use and the use of by Clerk of Works and Nominated SubContractors as required by the items or attendance The site office shall be equipped with a table and chairs of sufficient size and number for site meetings and plan chests for drawings shall also be provided by the contractor The Contractor shall allow for the cost of providing light refreshment for the consultants at site meetings.	
	TEMPORARY DISPOSAL OF RAIN WATER	
B	The Contractor shall provide and maintain all necessary temporary gutters, downpipes, chutes, drains etc. for conveying rainwater from the buildings and storage tanks for rainwater harvesting. The Contractor shall allow for temporary drainage plumbing and piping for keeping the premises and site free from accumulation of water. He shall also allow for construction and maintaining any necessary storm water drainage structures as directed.	
	CLEARING AWAY	
C	The Contractor shall remove all temporary works, rubbish, debris and surplus materials from the site as they accumulate, on intervals as intructed by the Engineer and upon completion of the works, remove and clear away all plant, equipment, rubbish, unused materials and stains and leave in a clean and tidy state to the reasonable satisfaction of the Engineer. The whole of the works shall be delivered up clean, complete and in perfect condition in every respect to the satisfaction of the Engineer.	
	Carried to collection	

ITEM	DESCRIPTION	AMOUNT
A	**SITE ACCOMODATION & STORAGE** The Contractor shall provide sheds for storage accommodation for all goods and materials liable to suffer damage from exposure to sunlight or inclement weather. The Contractor shall provide offices, mess rooms and all the buildings required by the Contractor for his own use and the use of Nominated Sub-Contractors as required by the items of attendance only. The Contractor shall provide at his own risk and cost where directed on the site weather proof lock-up sheds and make good damaged or disturbed surfaces upon completion to proof lock-up sheds and make good damaged or disturbed surfaces upon completion to the satisfaction of the Engineer Upon completion all temporary buildings are to be removed and cleared away	
B	**SANITATION OF THE WORKS** The sanitation of the works shall be provided, maintained and removed on completion by the Contractor to the satisfaction of the Engineers and local Authorities. The sanitary facilities shall be of generally acceptable standard regardless of the material being used to ensure ease of cleaning and maintain general well being of the users. Their location shall be agreed with the Engineers and the works shall not be commenced before the sanitary accommodation has been approved by the above mentioned authorities. The contractor shall ensure clear separation of sanitation facilities for both male and female workers clearly labelled "Gents" and "Ladies" and these further ensure that the facilites are sufficient/proportional to the population on site. The Contractor will be required to pay all conservancy charges and shall ensure clean daily maintenance and disinfecting of the sanitary facilities, and not less than once per week, the whole area shall be sprayed with disinfectant and insecticides and any temporary drains shall be removed and all works and surfaces disturbed made good and then the whole area disinfected and left clean and free from pollution to the satisfaction of the Engineer and local authorities.	
C	**HOARDINGS** The Contractor shall provide, erect and maintain throughout the course of the Contract and thereafter clear away and make good disturbed areas, temporary hoarding; **approximate length of 300 metres**: 2400mm high above ground consisting of: 100mm diameter timber poles at 1200mm centres firmly founded and secured, 75x50mm horizontal timber rails at 900mm centres, painted GCI sheets, proper timber gates with suitable locks to Engineers approval.	
	Carried to collection	

ITEM	DESCRIPTION	AMOUNT
A	**DEMOLITIONS AND DOWNTAKINGS** The Contractor is to allow for all temporary protection required during the works including ordinary and special dust screens, hoardings, barriers, warning signs etc. as directed by the Engineer and as necessary for the adequate protection of adjacent property and finishes, workmen employed upon the site and the public. Any damage or loss incurred due to the insufficiency of such protection must be made good by the Contractor. All protective devices are to be removed on completion of the work and any necessary making good consequent upon this is to be executed to the satisfaction of the Engineer All materials arising from demolitions and downtakings are deemed to be the property of the employer. No claim will be entertained on account of employer excising this right to retain the materials unless otherwise stated. The Contractor shall allow in his rates the cost of handling and disposal of debris arising out of the demolition works All downtakings shall be carefully removed, taken down, dismantled and stored on site until instructed by the Engineer to remove from the site. Such materials shall only be incorporated in the new works if required by the Engineer in which case appropriate adjustments will be made in the final account for the cost of labour, screws etc for fixing such downtakings in the new works. The Contractor shall be entirely responsible for any breakage or damage which may occur to materials required for re-use, during their removal, unless it is certified by the Engineer that such damage or breakage was inevitable as a result of the condition of the item concerned.	
B	**ACCESS TO SITE AND TEMPORARY ROADS** Means of access to the site shall be agreed with the Engineer prior to commencement of the works and the Contractor must allow for building and maintaining any temporary access roads for the transport of materials, plant and workmen as may be required for the complete execution of the works including the provision of temporary culverts, crossings, bridges or any other means of gaining access. Upon the completion the works the Contractor shall remove such temporary roads, temporary culverts bridges etc and make good and reinstate all works and services disturbed to the satisfaction of the Engineer.	
	Carried to collection	

ITEM	DESCRIPTION	AMOUNT
A	**SIGN BOARD** The Contractor shall provide and erect where directed and maintain during the whole period of the building operation and remove at completion, one approved sign board of **approximately 3000x3000mm and approximately 5800mm overall height** to the Architect's later design giving a brief description of the works, a 3D perspective image of the project, and showing the names of the employer and the consultants, with sufficient space to append the names of the sub-contractors and suppliers when known. The lettering concerning the Architect, Quantity Surveyor and Engineer is not to be more than 50mm high.	
B	**PRIME COST SUMS** i) The words "Prime Cost" (or the initials "P.C") appearing in the contract documents shall mean net costs exclusive of any trade, cash or other discount whatsoever but inclusive of the costs of the packing, carriage and delivery. Such costs shall be the same due to the sub-contract or supplier after adjustments where applicable in respect of measurements of rates. ii) Any increase or decrease in the prime costs sums resulting from the adjustments and properly paid by the contractor shall be added or deducted from the contract sum in the final account. In substantiation the contractor will require to produce to the Quantity Surveyor all quotations, invoices and receipted accounts as shall be necessary to show the details of the sums actually paid. iii) Any sum added by the contractor in these Bills of Quantities in respect of profits upon any prime costs will be deducted at the final settlement of accounts and the sum will be added to the amount of which will bear the same proportion to the sum added as the net amount properly expended to the original P.C sum. The profit is a management fee for arranging and taking responsibility of the sub-contract works or arranging for and checking the supply of materials and goods from nominated suppliers.	
	Carried to collection	

ITEM	DESCRIPTION	AMOUNT
A	NOMINATED SUB-CONTRACTORS The contractor shall accept responsibility for providing the following services for nominated sub-contractors. i) GENERAL ATTENDANCE: The following services are described as "allow for general attendance" . This shall mean: a) Use for the purpose of the sub-contract works of any scaffolding belonging to or provided by the contractor while it remains so erected upon site, provided that no warranty or other liability on the part of the contractor or of his other sub-contractors shall be created or implied in regard to the fitness, condition or suitability of the said scaffolding b) Provision of water, lighting, watching and attendance for the purpose of the sub-contract works. c) Use of sanitary accommodation, mess rooms and welfare facilities. d) Provision of space for erecting of offices or stores or space for storage of plant and materials. ii) SPECIAL ATTENDANCE: The following services are described as "allow for special attendance" . This shall mean: a) Taking delivery and including the provision of unskilled labour necessary to attend upon the sub-contractors workmen for the purpose of unloading plants/equipment and materials of significant weight and/or size, when received upon the site and placing in position within the sub-contractor's storage space or store. b) Special Scaffolding, scaffolding additional to the Contractors scaffolding or Reassembling of contractor's scaffolding. c) Facilitating special power requirements during the course of the works. **Carried to collection**	

ITEM	DESCRIPTION	AMOUNT
	CLAIMS	
A	It shall be a condition of this contract that upon it becoming reasonably apparent to the Contractor that he has incurred losses and / or expenses due to any of the contract conditions, or by any other reason whatsoever, he shall present such a claim or intent to claim notice to the Engineer within the contract period. No claim shall be entertained upon the expiry of the said contract period.	
	PAYMENTS	
B	The tenderer's attention is drawn to the fact that the payments shall be made in accordance with Clause 14 of the Conditions of Contract Agreement. In order to facilitate this, a list of the general component elements for the works is given at the summary page of these specifications and the tenderer is requested to break down his tender sum commensurate to the said elements.	
	PREVENTION OF ACCIDENT, DAMAGE OR LOSS	
C	The Contractor is thus instructed to take reasonable care in the execution of the works as to prevent accidents, damage or loss and disruption of activities being carried out. The Contractor shall allow in his rates any expense he deemed necessary by taking such care within the site.	
	Carried to collection	

ITEM	DESCRIPTION	AMOUNT
A	**NOMINATED SUPPLIERS** The contractor shall take delivery all materials or goods supplied by the Nominated suppliers and shall sign a receipt as having received them in good order and condition. He shall offload, transport to site, unload, hoist, provide safe storage and thereafter be responsible for any loss or damage or replacement of any such lost or damaged articles at his own expense and shall return case if so required. Provision is made herein following each appropriate P.C sums for the costs of the foregoing services against items reading "take delivery of and fix only" Fix Only:- "Fix Only" shall mean take delivery on site, unload, store, unpack, assemble as necessary, distribute to position, hoist and fix only.	
B	**DIRECT CONTRACTS** Notwithstanding the foregoing conditions, the Government reserves the right to place a "Direct Contract" for any goods or services required in the works which are covered by a P.C. Sum in the Bills of Quantities and to pay for the same direct. In any such instances, profit relative to the P.C. Sum in the priced Bills of Quantities will be adjusted as described for P.C. Sums is allowed.	
C	**PROTECTION OF THE WORK** The Contractor shall cover up and protect all finished work liable to damage including provision of temporary roof, gutters, drains etc until the completion of the works. In the event of any damages occurring to the works, materials, sewers, drains, gullies, paths or other works on site in temporary possession of the contractor for the purpose of this contract either from weather, want of proper protection, defects, or insufficiency of the works or any other causes or whatsoever during the progress of the works, the contractor shall be responsible and without extra charge, make good all damage and pay all costs which may be levied.	
D	**BLASTING OPERATIONS** Blasting will only be allowed with the express permission of the Engineer in writing. All blasting operations shall be carried out at the Contractor's sole risk and cost in accordance with any Government regulations in force for the time being, and any special regulations laid down by the Engineer governing the use and storage of explosives.	
	Carried to collection	

ITEM	DESCRIPTION	AMOUNT
	PREVENTION OF NUISANCE	
A	The works and such sections of the site necessary thereafter shall be under the entire care and control of the contractor during the whole period of the contract and shall take all possible precautions to prevent any nuisance, inconvenience or injury to the holder or occupiers of the existing or surrounding properties and to the public generally, and shall at all times keep all paths and roads affected by the works in a safe and clear state, and shall use proper precautions to ensure the safety of all wheeled traffic and pedestrians. The contractor shall provide appropriate screens to seal off the working area.	
	REMOVAL OF PLANT AND RUBBISH ETC	
B	The Contractor shall upon completion of the works remove and clear away all temporary buildings, plant, rubbish and unused materials, and shall leave the whole of the site of the works in a clean and tidy state to the satisfaction of the Engineer. He shall also remove all rubbish and dirt from the site at intervals or as directed by the Engineer. Particular care shall be taken in leaving windows, floors and fittings clean and the removal of all paint and cement stains therefrom. The contractor is expected to have established a well planned method of solid disposal of debris/garbage on and off the camp site	
	CONTRACTOR'S SUPERINTENDENCE/SITE AGENT	
C	The Contractor shall constantly keep on the works a literate English speaking Agent or Representative, competent and experienced in the kind of work involved who shall give his whole experience in the kind of work involved and shall give his whole time to the superintendence of the works. Such Agent or Representative shall receive on behalf of the Contractor all directions and instructions from the Engineer and such directions shall be deemed to have been given to the Contractor in accordance with the Conditions of Contract.	
	Carried to collection	

ITEM	DESCRIPTION	AMOUNT
	TRAINING LEVY	
A	The Contractor's attention is drawn to legal notice No. 237 of 2007 which requires payment by the Contractor for a training levy and the contractor shall allow in the preliminaries of this contract (basic rates column) for all costs arising or resulting therefrom. Proof of payment of this Levy should be provided at the request of the Engineer	
	STANDARDS LEVY	
B	The Contractor is required to make payments to the Kenya Bureau of Standards as Standard Levy inline with the current current and prevailing regulations.	
	VALUE ADDED TAX (V.A.T.)	
C	The Contractor's attention is drawn to V.A.T PUBLIC NOTICE NO. 6 of 5th August, 1993 regarding the Finance Bill 1993 which expanded the V.A.T base to cover construction services amongst other items. The Contractor's attention is also drawn to all other notices issued by the government in relation to taxation. The Contractor shall familiarise himself with the said notices and allow in all his Bills of Quantities rates (Excluding P.C and Provisional Sums) for the net tax. (i.e less input tax where applicable) as required by law. Please note that allowing a lump sum tax either in preliminaries or in summary page shall not be acceptable. Any additional information and assistance concerning the application of the said notice should be directed to the office of the Commissioner of Value Added Tax	
	Carried to collection	

ITEM	DESCRIPTION	AMOUNT
	BILL NO. 1	
	GENERAL PRELIMINARIES	
	COLLECTION	
	Carried from page 1/1	
	Carried from page 1/2	
	Carried from page 1/3	
	Carried from page 1/4	
	Carried from page 1/5	
	Carried from page 1/6	
	Carried from page 1/7	
	Carried from page 1/8	
	Carried from page 1/9	
	Carried from page 1/10	
	Carried from page 1/11	
	Carried from page 1/12	
	Carried from page 1/13	
	Carried from page 1/14	
	Carried from page 1/15	
	Carried from page 1/16	
	Carried from page 1/17	
	Carried from page 1/18	
	Carried from page 1/19	
	Carried from page 1/20	
	Carried from page 1/21	
	Total for General Preliminaries Carried to Summary of Bill No. 1	

PROJECT PROVISIONS

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	PROJECT PROVISIONS				
	Project Manager's Project Provisions. Contractor is advised to price for other preliminaries under the section of particular and General Preliminaries in the tender document				
	Project Manager's staff and Supervision				
A	Provide and maintain equipment for the Project Manager's site office for the duration of the project	Lump Sum	1	1,000,000	1,000,000
B	Provide for supervision as follows: 1 No. Clerks of works, (Building and services) for the duration of project and 1 no. Work Inspectors, and 1 No Surveyor to be engaged on need basis.	Lump Sum	1	1,500,000	1,500,000
C	Allow a provisional sum of Kshs. One Million (1,000,000) for Project Management Team and other stakeholders facilitation allowances during project implementation, as and whenever it is necessary.	Lump Sum	1	1,000,000	1,000,000
D	Allow a P.C. Sum of KShs.One Million,six hundred Thousand (Kshs.1,600,000) (shared) for supply of 1 Nr. (one)4WD station wagon SUV zero mileage vehicles of 2500 cc, or approved equivalent, including road licenses, number plates, insurances, etc. The vehicles to revert to Employer after completion of Contract. Minimum specifications include but not limited to the following: • Engine - 2.5 litres Turbo Diesel • Rear Differential Gear Lock • Braking System to include ABS (Anti-Lock Brake System) • Power Steering with adjustable Steering Column • Electronic Fuel Injection System. • 5 Speed Semi-Auto Transmission • Power Windows • Immobilizer and Alarm System • Fuel tank capacity between 80 litres and 100 litres	Lump Sum	1	1,600,000	1,600,000
E	Provide for the driver, fuels, maintenance, lubricants and servicing of the vehicle for kilometrage over 1000 km per vehicle month.	Km	8,650	75	648,750
F	Provide and erect publicity signboards for the whole of the project includinding defects liability period as will be instructed by the Project Manager and in accordance with the designs and specifications to be issued.	No.	2	50,000	100,000
G	Provide a Prime-cost sum of Kshs Five Hundred Thousand, (500,000.00) only for carrying out environmental impact assessment before the commencemennt of works and and undertaking environmental mitigation measures as the work progresses.	No.	1	500,000	500,000
H	Provide a Prime-cost sum of Kshs Six Hundred Thousand, (600,000.00) only for carrying out Geotechnical survey before the commencemennt of works and preparation of the reports	Lump Sum	Item	600,000	600,000
I	Allow a provisional sum of Kshs. Two Hundred and Fifty Thousand (250,000.00) for stationery, documentation, model making, review and preparation of as built drawings Manager.	Lump Sum	1	250,000	250,000
J	Allow a provisonal sum of kshs Three hundread and fifty thousand (kshs 350,000) for provision of laptop computer for the Engineers team	Item	1	350,000	350,000
	Contractor's profits and overheads				
K	Allow for the Contractor's overheads and profits on items A,B.C D, E, F G, H, I and J above.	%			
	Total for Project Expenses Carried to Grand Summary				

BUILDER'S WORK HOSTEL BLOCK

Item	Description	Unit	QTY	Rate	Amount
	PROPOSED APARTMENTS FOR STUDENT HOUSING PROGRAM (HOSTEL BLOCK G+7)				
	BILL NO.1-BUILDERS WORKS				
	ELEMENT NO 1 - SUBSTRUCTURES (ALL PROVISIONAL)				
	Site Clearance				
A	Clear site of all grass, hedges, shrubs, bushes grub up roots, load and remove from site and dispose at designated local authority areas.	SM	720		
B	Excavate for reducing levels commencing from existing ground level	Cm	324		
C	Excavate strip footing depth not exceeding 1.5 metres from reduced level	Cm	653		
D	Depth exceding 1.5 metres but not exceeding 3.0 metres ditto	Cm	239		
E	Excavate column bases depth not exceeding 1.5 metres from reduced level	Cm	250		
F	Depth exceding 1.5 metres but not exceeding 3.0 metres ditto	Cm	92		
G	Mass excavation for lift bases depth not exceeding 1.5 metres from reduced level	Cm	17		
H	Extra over all type of excavation for excavating in soft rock	Cm	78		
I	Ditto excavation in hard rock class I	Cm	78		
	Disposal of water				
J	Allow for keeping the whole of the excavation free from all spring and running water by pumping or any other such means as may be necessary	Item	1		
	Planking and strutting				
K	Allow for maintaining and upholding the sides of excavations and keeping excavations clear of all fallen materials, rubbish etc	Item	1		
	Carried to collection				

Item	Description	Unit	QTY	Rate	Amount
	Disposal of excavated material				
A	Load,wheel and cart away surplus excavated material to a Local Authority designated dumping site or fill soil heaps as away from site instructed by the Project Engineer.	CM	436		
B	Return, fill and ram selected excavated material around sides of foundations.	CM	706		
	Fillings				
C	Make up levels using approved imported materials: compacted in layers not exceeding 300mm thick with a 10 tonne roller: to the satisfaction of the Structural Engineer.	CM	324		
D	300mm thick hardcore bed: hand packed : compacted in layers not exceeding 150mm thick: to the satisfaction of the Structural Engineer	SM	720		
E	50 mm Stone dust/ Murram blinding to surfaces of hardcore	SM	720		
	Anti - termite to treatment				
F	Approved anti-termite treatment, with ten-year guarantee, sprayed to surfaces of hardcore strictly in accordance with manufacturer's instructions.	SM	720		
	Damp-proof membrane				
G	1000 gauge polythene or other equal and approved damp-proof membrane, laid over blinded hardcore (measured separately) with 300mm side and end laps (measured nett-allow for laps); 1 No. layer: bedded in and including cement and sand (1:3) mortar	SM	720		
	Concrete Blinding				
	Insitu concrete Class 15MPa: vibrated:				
H	50 mm thick blinding under strip footing	SM	481		
I	Column bases ditto	SM	121		
J	Lift shaft base diito	SM	12		
	In- situ vibrated reinforced concrete Class 25MPa: in:				
K	Strip footing	CM	192		
L	Column bases	CM	48		
K	Lift shaft base	CM	5		
M	Columns	CM	13		
N	150mm thick surface bed	SM	720		
0	175mm thick ramp	SM	13		
K	200 mm thick Lift shaft walls	SM	14		
	Carried to collection				

Item	Description	Unit	QTY	Rate	Amount
	Ribbed reinforcement steel bars to KS 573:2014 : Grade 500 high tensile strength including bends, hooks, tying wire and distance blocks; to S.E's detail (Provisional)				
A	Assorted reinforcement	KGS	23,472		
	Mesh fabric reinforcement to K/EAS 412;2 (2019) BRC A142;200 x 200mm, weighing 2.22kg/m² (measured net - no allowance) for laps; in two layers - top & bottom; including bends, tying wire and spacer blocks)				
B	In ground floor slab	SM	733		
	Modular steel frame with steel plates covering formwork and/or marine board formwork: to:				
C	Sides of the strip footing	SM	177		
D	Sides of column bases	SM	125		
E	Sides of lift bases	SM	14		
F	Vertical sides to columns	SM	253		
G	Vertical sides to lift shaft walls	SM	28		
H	Edge of slab not exceeding 150mm girth	LM	163		
	Foundation Walling				
	Natural quarry stone walling with a minimum of 7.0 N/mm2 bedded and jointed in cement and sand (1:4) mortar, reinforced with and including 25 x 3 mm thick hoop iron strips at every alternate course as described in;				
I	200mm thick walls in foundations	SM	763		
	Pavings				
J	Supply and lay 600 x 600 x 50mm reinforced concrete precast paving slabs around the building including laying, spreading and compacting 100mm thick approved sand bed blinding, on and including 150mm thick compacted hardcore to Engineer's approval.	SM	98		
	Plinth				
	25mm Thick cement and sand (1:3) rendering on concrete or masonry ; wood float finished; to				
K	Plinths externally	SM	49		
	Two coats black bitumastic paint on:				
L	Rendered surfaces	SM	49		
	Expansion joint				
M	25mm Thick; styrofoam or any equal or approved flexel material	SM	2		
N	25 x 50mm Mastic joint sealant	LM	12		
	Cement/sand (1:3) screed with approved waterproofing admixture, steel trowelled hard and smooth to receive waterproofing (m/s)				
M	20mm thick water proof cement/sand (1:3) screed to lift pit floor prepared to receive water proofing	SM	12		
N	12mm thick water proof cement/sand (1:3) render to wall prepared to receive water proofing	SM	14		
	Carried to collection				

Item	Description	Unit	QTY	Rate	Amount
	Waterproofing				
	CRYSTALLINE WATERPROOFING				
	All areas indicated shall be waterproofed by approved cementious system , provide 10 year guarantee, all to manufacturer's specifications and instructions as described:				
	Two coat slurry application: waterproofing powder: 1kg per m2 per coat, minimum 2 coats to seal all expansion joints, holes, repaired areas and angle fillet or as per manufacturers instructions				
	Application of render coat: waterproofing powder: 1kg per m2 at 4.5mm thick on slabs. Rate shall allow for hacking and preparing all concrete surfaces or as per manufacturers instructions				
A	Horizontal surfaces of lift base	SM	12		
B	Vertical surfaces of Lift shaft walls	SM	14		
	Carried to collection				
	COLLECTION				
	Total brought forward from page no: 1				
	Total brought forward from page no: 2				
	Total brought forward from page no: 3				
	Total brought forward from page no: Above				
	ELEMENT NO. 1 **Carried to**				
	SUBSTRUCTURES **Main summary**				

Item	Description	Unit	QTY	Rate	Amount
	PROPOSED APARTMENTS FOR STUDENT HOUSING PROGRAM (HOSTEL BLOCK G+7)				
	BILL NO.1-BUILDERS WORKS				
	ELEMENT No 2 - R.C FRAME				
	Insitu concrete class 25 MPa: vibrated: reinforced				
A	Columns	CM	146		
B	Beams	CM	244		
C	Upper Roof Beams	CM	4		
D	130mm thick suspended slab	SM	3,722		
E	150mm thick suspended slab	SM	1,766		
F	150mm thick Tank Slab over stairwell	SM	91		
G	150 mm thick landing	SM	94		
H	Staircases	CM	59		
I	200 mm thick lift shaft walls	SM	94		
	Ribbed reinforcement steel bars to KS 573:2014 : Grade 500 high tensile strengthincluding bends, hooks, tying wire and distance blocks; to S.E's detail (Provisional)				
J	Assorted reinforcement	Kg	132,639		
	Modular steel frame with steel plates covering formwork and/or marine board formwork: to				
K	Sides of columns	Sm	1,750		
L	Sides and soffites of beams	Sm	3,254		
M	Soffits of suspended slabs	Sm	5,579		
N	Edges of slab over 150mm but not exceeding 225mm girth	Lm	1,114		
O	To sloping soffites of staircases	Sm	183		
P	Soffits of landings	Sm	94		
Q	Riser of steps over 150 mm but not exceeding 225 mm girth	Lm	638		
R	Staircase string 300mm extreme girth and cut to profile of steps	Lm	153		
S	Edges of landing over 150 but ot exceeding 225mm high	Lm	220		
T	Sides of lift walls	Sm	188		
U	Edges of lift shaft openings 150-225mm high	Lm	50		
	Expansion joint				
V	25mm Thick; styrofoam or any equal or approved flexel material	Sm	25		
W	25 x 50mm Mastic joint sealant	Lm	93		
	ELEMENT NO. 2 Carried to				
	R.C FRAME Main summary				

Item	Description	Unit	QTY	Rate	Amount
	PROPOSED APARTMENTS FOR STUDENT HOUSING PROGRAM (HOSTEL BLOCK G+7)				
	BILL NO.1-BUILDERS WORKS				
	ELEMENT No 3-WALLING				
	WALLING				
	External Walling				
	Locally available and approved quarry stone walling with a minimum of 7.0 N/mm2 average compressive strength ;bedded and jointed in cement and sand (1:4) mortar, reinforced with and including 25 x 3 mm thick hoop iron strips at every alternate course as described in;				
A	200mm thick walling Externally	Sm	2,928		
B	200mm thick parapet walling	Sm	196		
	Internal Walling				
	Locally available and approved quarry stone walling with a minimum of 7.0 N/mm2 average compressive strength ;bedded and jointed in cement and sand (1:4) mortar, reinforced with and including 25 x 3 mm thick hoop iron strips at every alternate course as described in;				
C	200mm thick walling Internally	Sm	4,350		
D	100mm thick walling Internally	Sm	479		
E	Ditto perforated (For staircase)	Sm	138		
F	Approved hessian based damp proof course to 200mm thick walling in cement/sand mortar	Lm	360		
G	Ditto but to 100 mm thick	Lm	36		
	Precast Concrete Breeze Ventilation Blocks				
G	150 x 150mm wide x 50mm thick Pre Cast Concrete flower 3D breeze ventilation blocks bedded and jointed in cement and sand (1:4) mortar	Sm	149		
	COPING				
H	600 x 350 wide x 100mm thick insitu reinforced concrete class 20Mpa coping, throated and weathered and jointing to columns with cement sand 1:4 mortar	Lm	201		
	Lintols				
I	200mm x 200mm Deep lintols in reinforced concrete class 20MPa with and including 4No T10 and T8 stirups at 200mm centres; complete with formwork	Lm	492		
	ELEMENT NO. 3 WALLING **Carried to Main summary**				

Item	Description	Unit	QTY	Rate	Amount
	PROPOSED APARTMENTS FOR STUDENT HOUSING PROGRAM (HOSTEL BLOCK G+7)				
	BILL NO.1-BUILDERS WORKS				
	ELEMENT NO 4-WINDOWS				
	MILD STEEL WINDOWS				
	Supply, fabricate and fix the following purpose made small pane mild steel casement windows to be fabricated from approved mild steel sections (atleast 14g 2mm thick) comprising of frame and casement incorporating permanent hooded high level ventilation panels infilled with mosquito gauze : window supplied complete with and including 12mm solid square burglar proofing bars fixed at 200mm centres both ways and metal fixing lugs including building into wall and making good, and all necessary iron mongery viz hinges, fasteners, and hasp including shop priming window with red oxide primer before delivery to site:-				
	A prime cost sum of Kshs 6,000 per Sqm has been allowed for fabrication of the above specified Steel casement Windows by AHP juakali artisans as approved by the Project Manager/Architect. The contractor's unit rate shall include the cost of transport, storage, fixing and all associated accesories in addition to the PC Rate.				
A	Ditto size 3000 X 1800mm high	NO	7		
B	Ditto Size 1800 x 1800mm high	NO	8		
C	Ditto Size 1800 x 1200mm high	NO	9		
D	Window overall size 1500 X 1800mm high	NO	157		
E	Ditto Size 1200 x 1200mm high	NO	8		
F	Ditto size 2100 X 600mm high	NO	31		
G	Ditto Size 1600 x 600mm high	NO	16		
	Glazing				
H	4mm Thick clear sheet glass panes over 0.1 but not exceeding 0.5 square meters; fixing with premium putty	SM	473		
I	Ditto; obscure	SM	100		
	Painting and Decorations				
	On Metal work				
	Prepare and apply aerosol spray painting in two finishing coats of first grade paint as per the manufacturer's printed instructions to: -				
J	General window and grille surfaces; over 300mm girth internal	SM	1,146		
	Carried to Collection				

Item	Description	Unit	QTY	Rate	Amount
	Precast concrete window cill finishing fair on all exposed surfaces and hoisting and placing in position, bedding, jointing and pointing in pigmented cement and sand (1:3) mortar				
A	150 x 25mm thick Precast concrete window sill	LM	435		
	Curtain rods;				
B	1.5mm thick, 20mm thick diameter twin powdercoated mild steel rod complete accessories to approval	LM	353		
	Carried to collection				
	COLLECTION				
	Total brought forward from page no:				
	Total brought forward from page no:				
	ELEMENT NO. 4 WINDOWS **Carried to the Main summary**				

Item	Description	Unit	QTY	Rate	Amount
	PROPOSED APARTMENTS FOR STUDENT HOUSING PROGRAM (HOSTEL BLOCK G+7) **BILL NO.1-BUILDERS WORKS** **ELEMENT NO 5-DOORS** **External Doors** **Glazed mild steel casement doors** **Purpose made mild steel door comprising of 25 x 25 x3mm stiles tees to support the glass all in 40 x 40 x 2mm main frame all round , and including 50 x 50 x 3mm RHS fish tailed lugged to the wall on top and on the sides,including 4 mm clear glass fixed on to the metal tees with metal putty, all primed with one coat red oxide rime and spray painted with 2 coats of first quality gloss oil paint; complete with 180 degrees steel hinges, 2 lever mortice lock , keyed entry handle and stainless steel door sign with door number ,and all necessary seremetals assembled and fixed to opening including cutting and pinning lugs to concrete or block work surround and bedding frame in cement and sand mortar (1:3).** **A prime cost sum at the rate indicated below has been allowed for fabrication of the above specified Hardwood panelled door leaves by AHP juakali artisans as approved by the Project Manager/Architect. The contractor's unit rate shall include the cost of transport, storage, fixing and all associated accesories in addition to the PC Rate.**				
A	Double leaf door (overall size 1800 x 2400 mm high, comprising of 2 No 800 X 2100 mm high opennable leafs and 1800 x 300 mm high fixed fanlight in 4 mm clear glass.(PC Rate Kshs 41,000)	NO	3		
B	Ditto overall size 1500 x 2400 mm high.(PC Rate Kshs 34,100)	NO	1		
C	Single leaf door overall size 1000 x 2400 mm high, comprising of 1 No 900 X 2100 mm high single leaf and 900 x 300 mm high fixed fanligh in 4 mm clear glass.(PC Rate Kshs 21,600)	NO	2		
D	Dittor overall size 900 x 2400 mm high, comprising of 1 No 800 X 2100 mm high single leaf and 800 x 300 mm high fixed fanligh in 4 mm clear glass.(PC Rate Kshs 20,500)	NO	2		
	Roller Shutter **Supply, assemble and fix the following purpose made motorized roller shutter with manual override: powder coated slats: 3 mm thick galavanized steel guide rails: rolling gear housing in powder coated steel sheets: building in lugs on jambs and plugging and screwing to head: complete with purpose made ironmongery: as described to**				
E	Roller Shutter ; size 2400 x 2400 mm high to Architect's door schedule	NO	6		
	Fire Doors **Double leaf fire rated steel door with 30 minutes minimum fire resitance ,made from grade 304 stainless steel sheets and infilled with structural honey comb with vertical restraints ,complete with ,fire resistant dooor frames, itumescent seals,panic bar and handle lever, fire resistant hinges, automatic door closer and all other necessary door accessories**				
F	Door size 1500 x2400 mm high	NO	19		
	Carried to collection				

Item	Description	Unit	QTY	Rate	Amount
	Internal Doors Continued				
	Flush timber doors				
	50mm thick solid cored flush door Ply wood facing finished for painting (m/s) both sides; with 15 mm thick wood liping on edges:all to Architects specifications and approval				
	A prime cost sum at the rate indicated below for fabrication of the above specified Timber Flush door leaves by AHP juakali artisans as approved by the Project Manager/Architect. **(Contractor shall allow for transport and fixing in their rates)**				
A	Single leaf door overall size 900mm x 2400mm high comprising of 1 No Opennable leaf size 800 x 2100mm high including fixed fanlight size 800 x 300mm high in 4mm clear glass (measured separetely)(PC Rate Kshs 6480)	NO	138		
	A prime cost sum at the rate indicated below for fabrication of the above specified Timber Flush door leaves by AHP juakali artisans as approved by the Project Manager/Architect. **(Contractor shall allow for transport and fixing in their rates)**				
B	Single leaf door overall size 1000 mm x 2400mm high comprising of 1 No Opennable leaf size 900 x 2100mm high including fixed fanlight size 900 x 300mm high in 4mm clear glass (measured separetely)(PC Rate Kshs 7200)	NO	49		
C	Single leaf door size 800 x 1850mm high comprising of 1No. Opennable leaf size 700 x 1850mm high(PC Rate Kshs 4440)	NO	140		
D	Double leaf door overall size 900 x 2400mm high (D.06) comprising of 2No. Opennable leaf size 400 x 2350mm high(PC Rate Kshs 6480)	NO	28		
	Frames and frame finishes in wrot softwood				
F	25 x 25mm quadrant(PC Rate Kshs 75)	LM	1,860		
G	25 x 50mm architrave with two labours, plugged(PC Rate Kshs 150)	LM	1,860		
G	150mm x 50mm transome with three labours; chamfered edges; plugged (PC Rate Kshs 800)	LM	173		
H	50 x 150mm frame with three labours; chamfered edges; plugged (PC Rate Kshs 800)	LM	1,860		
I	10 x 20 mm Glazing beads (PC Rate Kshs 75)	LM	917		
	Glazing				
	4mm Thick clear sheet glass fixing with timber glazing beads to timber casements.				
J	In panes exceeding 0.1 sqm but not exceeding 0.5 square metres.	SM	58		
	Painting and decorating *Prepare surfaces and apply one coat of first grade quality aluminium wood primer to:-*				
K	Surfaces not exceeding 100mm girth	LM	4,638		
L	Surfaces over 100mm but not exceeding 200mm girth	LM	2,034		
	Prepare surfaces and apply one undercoat and one coat first grade quality ity gloss oil paint from Crown Solo Paints or equal and approved on;				
M	General timber surfaces	SM	1,354		
N	Surfaces not exceeding 100mm girth	LM	4,638		
O	Surfaces over 100 mm girth but not exceeding 200mm girth	LM	2,034		
	Carried to collection				

Item	Description	Unit	QTY	Rate	Amount
	Doors Continued				
	Ironmongery				
	Supply and Fix the following stainless steel ronmongery,complete with matching screws and keys to the approval of the Architect				
A	100mm pressed steel Butt Hinges	Pairs	575		
B	2 Lever Door mortice Lock complete with handles	NO	355		
C	Door fixing cramps	NO	2,130		
	Supply and fix the following purpose-made signage in printed vinyl panels in approved background and text colours in accordance to the architects later signage design fixed to finished surfaces in the approved adhesive and matching screws as applicable to;				
D	200 x 50mm Main door signage	NO	142		
E	150x450mm Floor Level Indicator Sign	NO	24		
F	500x100 Floor Wayfinding/Directional Sign	NO	16		
G	200x200mm Duct door Signage	NO	28		
H	450x200 mm Fire Exit Signage	NO	18		
I	1000x300 mm Block Identification Signage	NO	1		
	Carried to Collection				
	COLLECTION				
	Total brought forward from page no:		B/9		
	Total brought forward from page no:		B/10		
	Total brought forward from Above		B/11		
	ELEMENT NO. 5 **Carried to**				
	DOORS **Main summary**				

Item	Description	Unit	QTY	Rate	Amount
	PROPOSED APARTMENTS FOR STUDENT HOUSING PROGRAM (HOSTEL BLOCK G+7)				
	BILL NO.1-BUILDERS WORKS				
	ELEMENT NO 6 - EXTERNAL FINISHES				
	EXTERNAL WALL FINISHES				
	External Render				
	Cement and sand (1:3) render:wood floated: on concrete or blockwork: to				
A	15mm thick to beams, Columns, Slab Moulds and walling externally	SM	6,700		
B	Extra over horizontal and vertical pointing in 10mm thick rod in cement and sand mix (1:3) mortar including one coat Bituminous paint	SM	10		
	External Painting				
	Prepare and apply one coat Alkali Resistant primer followed by two finishing coats of silicon exterior Emulsion paint in accordance with the manufacturers written instructions and to the satisfaction of the architect to				
C	Concrete/masonry surfaces externally-Beam, Column and Slab Moulds	SM	6,700		
	ROOF FINISHES **Cement and sand (1:3) screeded beds: on concrete: complete with coloured pigmentation additives and hardener to:**				
D	50mm average waterproofed lightweight screed laid to falls and crossfalls to roof slabs -upper roof including gutter bases	SM	245		
	Prepare and apply to vertical/horizontal surfaces 4mm thick APP/EPDM water proofing or other equal and approved membrane with surface finish weighing 4kg/sm; laid on primer with torch-on process ;by an approved specialist all in accordance with the manufacturers instructions including provision of a written ten (10) year anti leak guarantee.				
E	4mm thick APP membrane applied to roof slabs	SM	245		
F	Ditto to skirting 200mm high	LM	186		
G	Dress membrane around 100mm rainwater outlet	No.	10		
	The Following Flat roof concrete tiles fixed with approved adhesive, laid and jointed with waterproofing bituminous compound				
H	20mm thick interlocking Concrete tiles of size 225 x 225mm with and including cement sand (1:4) backing to falls	SM	245		
	ELEMENT NO. 6 Carried to **EXTERNAL FINISHES Main summary**				

Item	Description	Unit	QTY	Rate	Amount
	PROPOSED APARTMENTS FOR STUDENT HOUSING PROGRAM (HOSTEL BLOCK G+7)				
	BILL NO.1-BUILDERS WORKS				
	ELEMENT NO 7 - INTERNAL FINISHES				
	Internal Wall Finishes				
	Cement and sand (1:3) backings				
A	15mm thick to receive ceramic Wall tiles	SM	2,495		
B	To receive porcelain wall tiles (m.s.) (Lift Lobby) *Ceramic wall tiles*	SM	206		
	Allow a Prime Cost supply/Purchase only rate of Ksh. 1000 per SM (In addition to the cost of purchase above, the contractor's rate shall include cost of transportation, offloading, storage, fixing including all necessary adhesives, grouting and accessories				
C	Supply and Fix approved ceramic wall tiles on prepared backings(m.s) with proprietary adhesive; jointed and pointed in matching coloured proprietary grouting: including pvc spacers and expansion joint as necessary: all to Architect's approval. - Wall Surfaces	SM	2,495		
	Porcelain wall tiles				
	Allow a Prime Cost supply/Purchase only rate of Ksh. 1500 per SM (In addition to the cost of purchase above, the contractor's rate shall include cost of transportation, offloading, storage, fixing including all necessary adhesives, grouting and accessories				
D	Supply and Fix porcelain wall tiles on prepared backings(m.s) with proprietary adhesive; jointed and pointed in matching coloured proprietary grouting: including pvc spacers and expansion joint as necessary: aluminium corner and dividing strips; all to Architect's approval. - Wall Surfaces	SM	206		
	15mm (minimum) two coat cement, sand (1:3) plaster complete with wire gauze anti-crack mechanism at the intersection of masonry walling and concrete beams as described to:-				
E	Concrete/masonry surfaces	SM	11,555		
	Painting and Decoration				
	Prepare, Skim and apply Emulsion or universal undercoat followed by two finishing coats of soft satin Emulsion paint in accordance with the manufacturers written instructions and to the satisfaction of the architect to				
F	Plastered concrete/masonry surfaces internally	SM	11,555		
	Carried to Collection				

Item	Description	Unit	QTY	Rate	Amount
	Floor Finishes				
	Cement and sand (1:3) screeds, backings, beds etc				
A	32mm bed finished to receive Floor Tiles (m.s)	SM	2,219		
B	25mm thick finished to receive terrazzo	SM	2,591		
	25 mm thick Cement and sand (1:4) backings on concrete surfaces prepared to receive terrazo finish : to;				
C	Landings	SM	94		
D	300 mm wide treads to receive terazzo (m.s)	LM	638		
E	150mm risers to receive terazzo (m.s)	LM	638		
	Ceramic Floor tiles				
	Allow a Prime Cost supply/Purchase only rate of Ksh. 1000 per SM (In addition to the cost of purchase above, the contractor's rate shall include cost of transportation, offloading, storage, fixing including all necessary adhesives, grouting and accessories				
F	Supply and Fix non-slip Ceramic tiles, on prepared bed(m.s) with proprietary adhesive; jointed and pointed in matching coloured proprietary grouting: including pvc spacers and expansion joint as necessary: all to Architect's approval.	SM	2,219		
G	Ditto 100mm wide Wall Skirtings	LM	2,029		
	15mm thick Colored terrazzo paving to architects specification ,polished to smooth surface and including adhesives, hardener, mixer, and dividing strips on prepared cement sand backin: to:-				
H	Floor surfaces (Corridors, wash areas and lobby)	SM	2,591		
I	Landings	SM	94		
J	300mm wide treads	LM	638		
K	150 mm high risers	LM	638		
L	Ditto 100mm wide Wall Skirtings	LM	2,280		
	Staircase soffit finishes				
	15mm (minimum) two coat cement, sand (1:3) plaster complete with wire gauze anti-crack mechanism at the intersection of masonry walling and concrete beams as described to:-				
M	Soffits of staircase landing	SM	94		
N	Ditto to sloping soffites exceeding 15˚ from horizontal	SM	183		
O	Staircase string 300mm extreme girth and cut to profile of steps	LM	153		
	Paint works				
	Prepare, skim and apply Emulsion or universal undercoat followed by two finishing coats of soft satin Emulsion paint in accordance with the manufacturers written instructions and to the satisfaction of the architect to				
P	Soffits of staircase landing	SM	94		
Q	Ditto to sloping soffites exceeding 15˚ from horizontal	SM	183		
R	Staircase string 300mm extreme girth and cut to profile of steps	LM	153		
	Carried to Collection				

Item	Description	Unit	QTY	Rate	Amount
	Ceiling finishes				
	15mm (minimum) two coat cement, sand (1:3) plaster complete with wire gauze anti-crack mechanism at the intersection of masonry walling and concrete beams as described to:-				
A	Soffits of Concrete surfaces	SM	4,900		
	Painting and Decoration				
	Prepare, skim and apply Emulsion or universal undercoat followed by two finishing coats of soft satin Emulsion paint in accordance with the manufacturers written instructions and to the satisfaction of the architect to				
B	Plastered ceilings	SM	4,900		
	Wet areas waterproofing - Kitchens, Toilets etc.				
	Liquid membrane - High build bitumen/ rubber latex emulsion with excellent adhesion, liquid applied to form a seamless flexible water proof/ vapour proof membrane as **as per the manufacturer's printed instructions to**; solid content =65%, Rubber Content=10% in dried film)				
C	To floors and walls	SM	3,244		
	Carried to Collection				

Item	Description	Unit	QTY	Rate	Amount
	COLLECTION				
	Total brought forward from page no:				
	Total brought forward from page no:				
	Total brought forward from page no:				
	ELEMENT NO. 7 Carried to INTERNAL FINISHES				

Item	Description	Unit	QTY	Rate	Amount
	PROPOSED APARTMENTS FOR STUDENT HOUSING PROGRAM (HOSTEL BLOCK G+7) **BILL NO.1-BUILDERS WORKS** **ELEMENT NO 8- BALUSTRADING AND RAILING** *Balustrades and staircase railings*				
A	50mm diameter x 3mm CHS handrail welded to ms flat core rail, fish tailed and cast onto 100mm thick perforated walL	LM	102		
	Prepare, prime and apply one undercoat and two finishing coats first quality gloss oil paint on				
B	General metal surfaces of handrail girth not exceeding 200mm	LM	102		
	ELEMENT NO. 8 BALUSTRADE AND RAILING **Carried to the Main summary**				

Item	Description	Unit	QTY	Rate	Amount
	PROPOSED APARTMENTS FOR STUDENT HOUSING PROGRAM (HOSTEL BLOCK G+7)				
	BILL NO.1-BUILDERS WORKS				
	ELEMENT NO 9 - JOINERY FITTINGS				
	Allow for providing materials, labour and construct fixtures and fittings as per Architects drawings of the following JOINERY FITTINGS AND FIXTURES complete with associated iron mongery;				
	NOTE: All blockboard, MDF boards,etc in joinery works shall be lipped with hardwood lipping all round before fixing.				
	High level cupboards				
	5000mm Wide high level kitchen cupboards in 18mm laminated mdf sides & shelves complete with doors, top, bottom & divisions with and including all necessary ironmongery; to Architect's details				
A	High level storage cupboard units 5000 mm long x 600mm high x 300mm deep	LM	12		
	Low level kitchen cabinets				
	Low level kitchen worktops with 600x600x10mm porcelain tiles top on 100mm thick reinforced concrete slab with A142 BRC mesh, formwork to soffits and slab edges, plater to soffits of slab, screed to top slab, 100mm thick plastered steeper walls, including 300x300x6mm thick ceramic wall tiles on both sides of the wall: 100mm plastered mass concrete plinths in concrete class 15MPa: 18mm laminated mdf sides & shelves complete with doors, shelves, drawers, cutting tiles for kitchen sink (m.s) & all necessary ironmongery; to Architect's details and approval				
B	Low level kitchen cupboards below concrete worktop total girth grouped together 5000mm long x 850mm high x 550mm deep	LM	12		
	Laundry Worktops				
	600 mm wide laundry worktop comprising;15mm thick Colored terrazzo paving top,polished to smooth surface on 100mm thick reinforced concrete slab with A142 BRC mesh, formwork to soffits and edges of the slab, plaster to soffits of slab, screed to top slab, 100mm thick plastered masonry walls ,100mm plastered mass concrete plinths in concrete class 15MPa: including cutting for sinks (m.s) all to Architect's details and approval				
C	850mm high x 600mm deep	LM	82		
	ELEMENT NO. 9 JOINERY & FITTINGS **Carried to the Main summary**				

Item	Description	Unit	QTY	Rate	Amount
	BILL NO.1-BUILDERS WORKS				
	ELEMENT NO 10 - BUILDERS WORKS IN CONNECTION WITH SERVICES (BWICWS)				
	Plumbing, Drainage and Mechanical Installations				
A	Inspect all drawings and Bills of Quantities for Plumbing, Drainage and Mechanical Installations and allow for all Builder's work associated with the installations; including cutting away and making good after installing a concealed drainage system; including cutting or leaving all holes notches, mortices, sinkings and chases in both the structure and its coverings; including but not limited to forming recess in masonry	Item			
	Electrical Services Installations				
B	Inspect all drawings and Bills of Quantities for Electrical Installations and allow for all Builder's work associated with the Electrical installations, including cutting away for and making good after Electrician installing a concealed conduit system including cutting or leaving all holes notches, mortices, sinkings and chases in both the structure and its coverings; including but not limited to forming recess in masonry	Item			
	ELEMENT NO. 10 **Carried to the BUILDERS WORKS IN CONNECTION WITH SERVICES (BWICWS) Main summary**				

Item	Description	Unit	QTY	Rate	Amount
	PROPOSED APARTMENTS FOR STUDENT HOUSING PROGRAM (HOSTEL BLOCK G+7)				
	BILL NO.1-BUILDERS WORKS **MAIN SUMMARY**				
1	**Substructures**				
2	**Reinforced Concrete Frame**				
3	**Walling**				
4	**Windows**				
5	**Doors**				
6	**External Finishes**				
7	**Internal Finishes**				
8	**Balustrade and Railing**				
9	**Joinery and Fittings**				
10	**Builders Works**				
	TOTAL FOR 1NO. (G+7) HOSTEL BLOCK				
	MULTIPLY BY **2.NO** OF BLOCKS	**X 2**			2.00
	TOTAL FOR HOSTEL (G+7) BLOCK(S) CARRIED TO GRAND SUMMARY				

POWERHOUSE

Item	DESCRIPTION	Unit	QTY	RATE	AMOUNT
	PROPOSED POWER HOUSE				
	BILL NO.6-BUILDERS WORKS				
	ELEMENT NO 1 - SUBSTRUCTURES (ALL PROVISIONAL)				
	Site Clearance				
A	Clear site of all grass, hedges, shrubs, bushes grub up roots, load and remove from site and dispose at designated local authority areas.	SM	24		
B	Excavate average 200mm deep to remove top vegetable soil, load, remove from site and dump in designated local authority dump site.	SM	24		
C	Excavate to reduced levels in varying depths not exceeding 1.5m deep from existing ground levels.	Cm	36		
D	Ditto exceeding 1.5m deep but not exceeding 3.0m from existing reduced levels.	Cm	12		
E	Excavate for Strip foundations depth starting from Reduced ground levels.	Cm	3		
F	Excavate for duct bank depth starting from Reduced ground levels.	Cm	4		
G	Extra over all type of excavation for excavating in soft rock	Cm	3		
H	Ditto excavation in hard rock class I	Cm	3		
	Disposal of water				
I	Allow for keeping the whole of the excavation free from all spring and running water by pumping or any other such means as may be necessary	Item			
	Planking and strutting				
J	Allow for maintaining and upholding the sides of excavations and keeping excavations clear of all fallen materials, rubbish etc	Item			
	Carried to collection				

Item	DESCRIPTION	Unit	QTY	RATE	AMOUNT
	Disposal of excavated material				
A	Return, fill and ram selected excavated material around foundations.	CM	65		
B	Load,wheel and cart away surplus excavated material to a Local Authority designated dumping site or fill soil heaps as away from site instructed by the Project Engineer.	CM	15		
	Fillings				
C	Make up levels using approved imported materials: compacted in layers not exceeding 300mm thick with a roller: to the satisfaction of the Structural Engineer.	CM	49		
D	300mm thick hardcore bed: hand packed : compacted in layers not exceeding 150mm thick: to the satisfaction of the Structural Engineer	SM	36		
F	50 mm Thick Murram Blinding to surfaces of hadcore	SM	36		
	Anti - termite to treatment				
G	Approved anti-termite treatment, with ten-year guarantee, sprayed to surfaces of hardcore strictly in accordance with manufacturer's instructions.	SM	36		
	Damp-proof membrane				
H	1000 gauge polythene or other equal and approved damp-proof membrane, laid over blinded hardcore (measured separately) with 300mm side and end laps (measured nett-allow for laps); 1 No. layer: bedded in and including cement and sand (1:3) mortar	SM	36		
	Concrete Blinding				
	Insitu concrete class 15/20 mm aggregates: vibrated:				
I	50 mm Thick under strip foundation	SM	14		
J	50 mm Thick under duct bank	SM	5		
	In- situ vibrated reinforced concrete Class 25 (20mm aggregates): in:				
L	Columns	CM	1		
N	Strip foundation	CM	3		
O	100mm thick duct bank sides	SM	13		
P	100mm thick duct bank bottom	SM	4		
Q	150 mm thick horizontal ground floor slab	SM	20		
	Carried to collection				

Item	DESCRIPTION	Unit	QTY	RATE	AMOUNT
	Ribbed reinforcement steel bars to BS4449: 2005: Grade 500 high tensile strengthincluding bends, hooks, tying wire and distance blocks; to S.E's detail (Provisional)				
A	Assorted reinforcement	KG	303		
	Mesh fabric reinforcement to BS 4483 BRC A142; 200x200mm, weighing 2.22kg/m² (measured net - no allowance) for laps; in two layers - top & bottom; including bends, tying wire and spacer blocks)				
B	In floor beds	SM	20		
	Modular steel frame with 5mm thick steel plates covering formwork and/or marine board formwork: to:				
C	Vertical sides to columns	SM	10		
E	Vertical sides to strip footing	SM	9		
F	Vertical sides to duck bank sides	SM	27		
G	Vertical sides to duck bank bottom	LM	49		
H	Edge of slab not exceeding 150mm girth	LM	48		
	Foundation Walling				
	Natural quarry stones rough dressed; bedded in and including cement and sand (1:4) mortar; reinforced with and including 45 mm wide hoop iron gauge in alternate courses: in:				
I	200mm thick walls in foundations	SM	46		
	Pavings				
J	Supply and lay 600 x 600mm medium duty paving blocks round the Building including laying, spreading and compacting 100mm thick approved sand bed blinding to approval.	SM	27		
	Plinth				
	25mm Thick cement and sand (1:4) rendering on concrete or masonry ; wood float finished; to				
K	Plinths externally	SM	10		
	Two coats black bitumastic paint on:				
L	Rendered surfaces	SM	10		
	Carried to collection				

Item	DESCRIPTION	Unit	QTY	RATE	AMOUNT
	COLLECTION				
	Total brought forward from page no: 1				
	Total brought forward from page no: 2				
	Total brought forward from page no: 3				
	ELEMENT NO. 1 **Carried to** **SUBSTRUCTURES** **Main summary**				

Item	DESCRIPTION	Unit	QTY	RATE	AMOUNT
	PROPOSED POWER HOUSE				
	BILL NO.1-BUILDERS WORKS				
	ELEMENT No 2 - R.C FRAME				
	Reinforcement to BS 4449:1997 , Grade 460B high strength type 2 ribbed bars with proof stress of 460 N/mm2				
	Insitu concrete class 25 (20 mm aggregate): vibrated: reinforced				
A	Columns	CM	1		
B	Ring beam	CM	1		
C	Ramp 200 mm thick average thickness	SM	4		
D	175 mm thick roof slab	SM	31		
	Ribbed reinforcement steel bars to BS4449: 2005:Grade 500 high tensile strength including bends, hooks, tying wire and distance blocks to S.E's detail (All provisional)				
E	Assorted reinforcement	Kg	606.00		
	Modular steel frame with 5mm thick steel plates covering formwork and/or marine board formwork: to				
F	Sides of columns	Sm	12		
G	Sides and soffites of beams	Sm	22		
H	Sloping soffits of roof slab	Sm	31		
J	Edge of ramp exceeding 150mm but not exceeding 225 mm g	Lm	3		
K	Edges of horizontal roof slab, exceeding 150mm but not exceeding 225 mm girth	Lm	23		
	ELEMENT NO. 2 Carried to				
	R.C FRAME Main summary				

Item	DESCRIPTION	Unit	QTY	RATE	AMOUNT
	PROPOSED POWER HOUSE				
	BILL NO.1-BUILDERS WORKS				
	ELEMENT No 3-WALLING				
	WALLING				
	External Walling				
	Locally available and approved quarry stone walling with a minimum of 7.0 N/mm2 average compressive strength ;bedded and jointed in cement and sand (1:4) mortar, reinforced with and including 25 x 3 mm thick hoop iron strips at every alternate course as described in;				
A	200mm thick walling Externally	Sm	40		
B	200mm thick parapet walling	Sm	8		
	Precast Concrete Breeze Ventilation Blocks				
C	305 x 305 mm wide x 150 mm thick Pre Cast Concrete lourved breeze ventilation blocks bedded and jointed in cement and sand (1:4) mortar including vermin proof gauge wire	Sm	1		
	Damp proof courses				
D	Approved hessian based damp proof course to 200mm thick walling in cement/sand mortar	Lm	17		
	Window Cill				
	Bull-nosed burnt clay, finishing fair on all exposed surfaces and hoisting and placing in position, bedding, jointing and pointing in pigmented cement and sand (1:3) mortar				
E	150 x 25mm thick clay window sill	Lm	7		
	ELEMENT NO. 3 Carried to				
	WALLING Main summary				

Item	DESCRIPTION	Unit	QTY	RATE	AMOUNT
	PROPOSED POWER HOUSE				
	BILL NO.1-BUILDERS WORKS				
	ELEMENT NO 4-DOORS				
	Steel Casement Doors				
	Supply, fabricate and fix the following purpose made mild steel casement door comprising 40 x 25 x3mm stiles, top and bottom stiles, 4 No Intermediate rails, 1.5mm steel sheet both sideswelded in place and 5mm thick clear glazing, all primed with red oxide and spray painted with two finishing coats of first grade quality gloss oil paint on ; complete with all necessary ironmongery fasteners and necessary seremetals assembled and fixed to opening including cutting and pinning lugs to concrete or block work sorroung and bedding frame in cement and sand mortar (1:3).				
A	Door size 1000 x 2500mm high	NO	1		
B	Ditto Door size 2000 x 2500mm high	NO	1		
	ELEMENT NO. 4 DOORS **Carried to Main summary**				

Item	DESCRIPTION	Unit	QTY	RATE	AMOUNT
	PROPOSED POWER HOUSE				
	BILL NO.1-BUILDERS WORKS				
	ELEMENT NO 5 - EXTERNAL FINISHES				
	EXTERNAL WALL FINISHES				
	External Finish				
	Cement and sand (1:3) render:wood floated: on concrete or blockwork: to				
A	15mm thick to columns/beams surfaces externally	SM	17		
	Keying				
B	Extra over horizontal and vertical pointing in 10mm thick rod in cement and sand mix (1:3) mortar including one coat Bituminous paint	SM	56		
	External Painting				
	Prepare and apply one coat undercoat and two finishing coats of long lasting exterior/ weatherguard paint or other equal and approved exterior quality paint to surfaces as described in:-				
C	Columns surfaces externally	SM	56		
	ELEMENT NO. 5 Carried to				
	EXTERNAL FINISHES Main summary				

Item	DESCRIPTION	Unit	QTY	RATE	AMOUNT
	PROPOSED POWER HOUSE **BILL NO.1-BUILDERS WORKS** **ELEMENT NO 6 - INTERNAL FINISHES** ***Internal Wall Finishes***				
	12mm (minimum) two coat lime plaster complete with wire gauze anti-crack mechanism at the intersection of masonry walling and concrete beams as described to:-				
A	Concrete/masonry surfaces	SM	42		
B	Ditto to Jambs and reveals not exceeding 200mm girth	LM	30		
	Painting and Decoration				
	Prepare and apply one undercoat and one finishing coat first quality permaplast emulsion paint on:				
C	Plastered concrete/masonry surfaces internally	SM	42		
D	Ditto to Jambs and reveals not exceeding 200mm girth	LM	30		
	Floor Finishes				
	Plain in-situ concrete (1:3:6/ 20 mm agg.)				
E	40 mm Thick polished plain concrete on exisiting Reiforced concrete base; level or to falls; mixed with hardener; SIKA FLOOR 3 QUARTZ ; power floated to smooth finish to approval	SM	20		
	Duct bank cover plate				
F	6 mm thick chequered plate in duct bank covers including Forming 50 mm wide x 50 mm deep rebate to both sides of channel at the top; with and including 50 mm x 50 mm x 5 mm thick mild steel angle framing cast in concrete with mild steel anchor bars and grouted to both rebated sides of channel; all welding ground to a smooth finish; including priming metal surfaces with red oxide primer before delivery to site and three coats gloss oil automotive spray paint finish; all to Architect's and Structural Engineer's approval	SM	24		
G	Allow a provisional sum for foundation holes for 100 mm LG x 12.5 diamter bolts	Item			
H	Allow a provisional sum for plates, bolts, nuts, washers e.t.c	Item			
	Ceiling finishes				
	12mm (minimum) two coat lime plaster complete with wire gauze anti-crack mechanism at the intersection of masonry walling and concrete beams as described to:-				
J	Soffits of Concrete surfaces	SM	24		
	Painting and Decoration				
	Prepare and apply one undercoat and one finishing coat first quality plastic emulsion paint on:-				
K	Plastered ceilings	SM	24		
	ELEMENT NO. 6 Carried to **INTERNAL FINISHES**				

Item	DESCRIPTION	Unit	QTY	RATE	AMOUNT
	PROPOSED POWER HOUSE **BILL NO.1-BUILDERS WORKS** **ELEMENT NO 7 - ROOFING** **ROOF FINISHES** **Cement and sand (1:4) screeded beds: on concrete: complete with coloured pigmentation additives and hardener to:**				
A	50mm average waterproofed lightweight screed laid to falls and crossfalls to roof slabs -upper roof including gutter bases	SM	31		
	Prepare and apply to vertical/ horizontal surfaces 4mm thick APP/ EPDM water proofing or other equal and approved membrane with surface finish weighing 4kg/ sm; laid on primer with torch-on process ;by an approved specialist all in accordance with the manufacturers instructions including provision of a written ten (10) year anti leak guarantee.				
B	4mm thick APP membrane applied to roof slabs	SM	31		
C	Ditto to skirting 200mm high	LM	20		
D	Dress membrane around 100mm rainwater outlet	No.	2		
	The Following Flat roof concrete tiles fixed with approved adhesive, laid and jointed with waterproofing bituminous compound				
E	20mm thick interlocking Concrete tiles of size 225 x 225mm	SM	31		
	ELEMENT NO. 7 ROOFING Carried to the Main summary				

Item	DESCRIPTION	Unit	QTY	RATE	AMOUNT
	PROPOSED POWER HOUSE				
	BILL NO.1-BUILDERS WORKS				
	MAIN SUMMARY		**PAGE**		
1	**Substructures**		**PH/4**		
2	**Reinforced Concrete Frame**		**PH/5**		
3	**Walling**		**PH/6**		
4	**Doors**		**PH/7**		
5	**External Finishes**		**PH/8**		
6	**Internal Finishes**		**PH/9**		
7	**Roofing**		**C/10**		
	TOTAL FOR POWER HOUSE TO GRAND SUMMARY				

GUARD HOUSE

Item	Description	Unit	QTY	RATE	AMOUNT
	PROPOSED GUARD HOUSE				
	BILL NO.1-BUILDERS WORKS				
	ELEMENT NO 1 - SUBSTRUCTURES (ALL PROVISIONAL)				
A	*Site Clearance* Clear site of all grass, hedges, shrubs, bushes grub up roots, load and remove from site and dispose at designated local authority areas.	SM	15		
B	Excavate average 300mm deep to remove top vegetable soil, load, remove from site and dump in designated local authority dump site.	SM	15		
C	Excavate for Strip foundations depth not exceeding 1.50 metres starting from Reduced ground levels.	CM	10		
D	Ditto to column bases	CM	2		
E	Extra over all type of excavation for excavating in soft rock	CM	1		
F	Ditto excavation in hard rock class I	CM	1		
G	**Disposal of water** Allow for keeping the whole of the excavation free from all spring and running water by pumping or any other such means as may be necessary	Item			
H	**Planking and strutting** Allow for maintaining and upholding the sides of excavations and keeping excavations clear of all fallen materials, rubbish etc	Item			
	Carried to collection				

Item	Description	Unit	QTY	RATE	AMOUNT
	Disposal of excavated material				
A	Load,wheel and cart away surplus excavated material to a Local Authority designated dumping site or fill soil heaps as away from site instructed by the Project Engineer.	CM	1.00		
B	Return, fill and ram selected excavated material around sides of foundations.	CM	12		
	Fillings				
C	300mm thick hardcore bed: hand packed : compacted in layers not exceeding 150mm thick: to the satisfaction of the Structural Engineer	SM	12		
D	50 mm Stone dust/ Murrum blinding to surfaces of hardcore	SM	15		
E	**Anti - termite to treatment** Approved anti-termite treatment, with ten-year guarantee, sprayed to surfaces of hardcore strictly in accordance with manufacturer's instructions.	SM	15		
F	**Damp-proof membrane** 1000 gauge polythene or other equal and approved damp-proof membrane, laid over blinded hardcore (measured separately) with 300mm side and end laps (measured nett-allow for laps); 1 No. layer: bedded in and including cement and sand (1:3) mortar	SM	15		
	Concrete Blinding				
	Insitu concrete class 15/20 mm aggregates: vibrated:				
G	50 mm thick blinding under column bases	SM	6		
H	50 mm thick blinding under strip foundations	SM	8		
	In- situ vibrated reinforced concrete Class 25 MPa: in:				
I	Column bases	CM	2		
J	Strip foundations	CM	2		
K	100mm thick surface bed	SM	15		
L	Steps **In- situ vibrated reinforced concrete Class 25 MPa: in:**	CM	0		
M	Columns	CM	1		
	Carried to collection				

Item	Description	Unit	QTY	RATE	AMOUNT
	Ribbed reinforcement steel bars to BS4449: 2005: Grade 500 high tensile strengthincluding bends, hooks, tying wire and distance blocks; to S.E's detail (Provisional)				
A	Assorted reinforcement	KGS	264		
	Mesh fabric reinforcement to BS 4483 BRC A142;200 x 200mm, weighing 2.22kg/m² (measured net - no allowance) for laps; in two layers - top & bottom; including bends, tying wire and spacer blocks)				
B	In ground floor slab	SM	15		
	Modular steel frame with 5mm thick steel plates covering formwork and/or marine board formwork: to:				
C	Sides of column bases	SM	7		
D	Vertical sides to columns	SM	8		
E	Edge of slab not exceeding 150mm girth	LM	15		
F	Edges of risers 75 - 150mm high	LM	14		
	Foundation Walling				
	Natural quarry stones rough dressed; bedded in and including cement and sand (1:4) mortar; reinforced with and including 45 mm wide hoop iron gauge in alternate courses: in:				
G	200mm thick walls in foundations	SM	18		
	Pavings				
H	Supply and lay 600 x 600mm medium duty paving blocks round the building including laying, spreading and compacting 100mm thick approved sand bed blinding, with and including excavation, 150mm thick compacted hardcore and 50mm thick quarry dust blinding to approval.	SM	7		
	Plinth				
	25mm Thick cement and sand (1:4) rendering on concrete or masonry ; wood float finished; to				
J	Plinths externally	SM	5		
	Two coats black bitumastic paint on:				
K	Rendered surfaces	SM	5		
	Carried to collection				

Item	Description	Unit	QTY	RATE	AMOUNT
	COLLECTION				
	Total brought forward from page no:				
	Total brought forward from page no:				
	Total brought forward from page no:				
	ELEMENT NO. 1 Carried to **SUBSTRUCTURES Main summary**				

Item	Description	Unit	QTY	RATE	AMOUNT
	PROPOSED GUARD HOUSE				
	BILL NO.1-BUILDERS WORKS **ELEMENT No 2 - R.C FRAME**				
	In- situ vibrated reinforced concrete Class 25 MPa: in:				
A	Columns	CM	2		
B	Beams	CM	2		
C	150mm thick Roof Slab	SM	15		
	Ribbed reinforcement steel bars to BS4449: 2005:Grade 500 high tensile strength including bends, hooks, tying wire and distance blocks to S.E's detail (All provisional)				
D	Assorted reinforcement	Kg	759		
	Modular steel frame with 5mm thick steel plates covering formwork and/or marine board formwork: to				
E	Sides of columns	SM	27		
F	Sides and soffites of beams	SM	16		
G	Soffits of suspended slabs	SM	15		
H	Edges of slab over 150mm but not exceeding 225mm girth	LM	15		
	ELEMENT NO. 2 R.C FRAME **Carried to Main summary**				

Item	Description	Unit	QTY	RATE	AMOUNT
	PROPOSED GUARD HOUSE				
	BILL NO.1-BUILDERS WORKS				
	ELEMENT No 3-WALLING				
	WALLING				
	External Walling				
	Locally available and approved quarry stone walling with a minimum of 7.0 N/mm2 average compressive strength ;bedded and jointed in cement and sand (1:4) mortar, reinforced with and including 25 x 3 mm thick hoop iron strips at every alternate course as described in;				
A	200mm thick walling Externally	SM	24		
B	150mm thick parapet walling	SM	6		
	Internal Walling				
	Locally available and approved quarry stone walling with a minimum of 7.0 N/mm2 average compressive strength ;bedded and jointed in cement and sand (1:4) mortar, reinforced with and including 25 x 3 mm thick hoop iron strips at every alternate course as described in;				
C	200mm thick walling Internally	SM	5		
D	Approved hessian based damp proof course to 200mm thick walling in cement/sand mortar	LM	11		
	COPING				
E	Ditto 200 x 50mm concrete coping to walls twice weathered and throated;	LM	11		
	Lintols				
F	200mm x 200mm Deep lintols in reinforced concrete class 20MPa with and including 4No T10 and T8 stirups at 200mm centres; complete with formwork	LM	2		
	ELEMENT NO. 3 WALLING **Carried to Main summary**				

Item	Description	Unit	QTY	RATE	AMOUNT
	PROPOSED GUARD HOUSE				
	BILL NO.1-BUILDERS WORKS				
	ELEMENT NO 4-WINDOWS				
	MILD STEEL WINDOWS				
	Supply, fabricate and fix the following purpose made small pane mild steel casement windows to be fabricated from approved mild steel sections (atleast 14g 2mm thick) comprising of frame and casement incorporating permanent hooded high level ventilation panels infilled with mosquito gauze : window supplied complete with and including 12mm solid square burglar proofing bars fixed at 200mm centres both ways and metal fixing lugs including building into wall and making good, and all necessary iron mongery viz hinges, fasteners, and hasp including shop priming window with red oxide primer before delivery to site:-				
A	Window, overall size 1900 X 1500mm high to Architects Details	NO	1		
B	Ditto Size 650 x 1500mm high (bedroom)	NO	1		
C	Ditto Size 600 x 900mm high (WC/SH)	NO	1		
	Glazing				
D	4mm Thick clear sheet glass panes over 0.1 but not exceeding 0.5 square meters; fixing with premium putty	SM	4		
E	Ditto; obscure	SM	1		
	Painting and Decorations				
	On Metal work				
	Prepare and apply aerosol spray painting in one finishing coats of approved first grade to: -				
F	General window and grille surfaces; over 300mm girth internal	SM	4		
	Carried to Collection				

Item	Description	Unit	QTY	RATE	AMOUNT
	Bull-nosed burnt clay, finishing fair on all exposed surfaces and hoisting and placing in position, bedding, jointing and pointing in pigmented cement and sand (1:3) mortar				
A	150 x 25mm thick clay window sill	LM	3		
	Carried to collection				
	COLLECTION				
	Total brought forward from page no:				
	Total brought forward from page no:				
	ELEMENT NO. 4 WINDOWS **Carried to the Main summary**				

Item	Description	Unit	QTY	RATE	AMOUNT
	PROPOSED GUARD HOUSE				
	BILL NO.1-BUILDERS WORKS				
	ELEMENT NO 5-DOORS				
	External Doors				
	Flush timber doors				
	50 mm thick Semi Solid cored flush doors with plywood facing to receive painting (m.s) all to Architects details, specifications and approval				
A	Door size 900mm x 2400mm High comprising of 1 No Opennable leaf size 800 x 2100mm high including fixed fanlight size 900 x 300mm high in 4mm clear glass (measured separetely)	NO	2		
	4mm Thick clear sheet glass fixing with timber glazing beads to timber casements.				
C	In panes exceeding 0.1 sqm but not exceeding 0.5 square metres.	SM	1		
	Frames and frame finishes in soft wood Timber				
D	25 x 25mm quadrant	LM	5		
E	25 x 50mm architrave with two labours, plugged	LM	8		
F	150mm x 50mm transome with three labours; chamfered edges; plugged	LM	8		
G	150mm x 50mm frame with three labours; chamfered edges; plugged	LM	8		
	Carried to collection				

Item	Description	Unit	QTY	RATE	AMOUNT
	Painting and decorating				
	Priming back of frame with an aluminium or equivalent and approved wood primer				
A	Surfaces not exceeding 100mm girth	LM	13		
B	Surfaces over 100mm but not exceeding 200mm girth	LM	15		
	Prepare Knot, prime, stop and apply one undercoat and one coats first grade gaulity gloss oil paint to wood surfaces				
C	General timber surfaces	SM	9		
D	Surfaces over 200mm but not exceeding 300mm girth	LM	15		
E	Architraves: not exceeding 100 mm girth	LM	8		
F	Quadrant beading : not exceeding 100 mm girth	LM	5		
	Ironmongery				
	Supply and fix the following ironmongery to timber				
	complete with matching screws and keys to the approval of the Architect				
G	100mm pressed steel Butt Hinges	PRS	3		
H	Ditto: but 2 Lever Door Lock with handle	NO	2		
I	Door fixing cramps	NO	12		
J	Bronze door sign with door numbers as per Architect detail	NO	2		
	Carried to Collection				
	COLLECTION				
	Total brought forward from page no:				
	Total brought forward from page no:				
	ELEMENT NO. 5 DOORS **Carried to Main summary**				

Item	Description	Unit	QTY	RATE	AMOUNT
	PROPOSED GUARD HOUSE				
	BILL NO.1-BUILDERS WORKS				
	ELEMENT NO 6 - EXTERNAL FINISHES				
	EXTERNAL WALL FINISHES				
	External Render				
	Cement and sand (1:3) render:wood floated: on concrete or blockwork: to				
A	15mm thick to beams, Columns, Slab Moulds and walling externally	SM	7		
B	Extra over horizontal and vertical pointing in 10mm thick rod in cement and sand mix (1:3) mortar including one coat Bituminous paint	LM	29		
	External Painting				
	Prepare and apply one coat undercoat and two finishing coats of long lasting exterior/ weatherguard paint or other equal and approved exterior quality paint to surfaces as described in:-				
C	Concrete/masonry surfaces externally-Beam, Column and Slab Moulds	SM	7		
	ROOF FINISHES **Cement and sand (1:4) screeded beds: on concrete: complete with coloured pigmentation additives and**				
	hardener to:				
D	50mm average waterproofed lightweight screed laid to falls and crossfalls to roof slabs -upper roof including gutter bases	SM	12		
	Prepare and apply to vertical/horizontal surfaces 4mm thick APP/EPDM water proofing or other equal and approved membrane with surface finish weighing 4kg/sm; laid on primer with torch-on process ;by an approved specialist all in accordance with the manufacturers instructions including provision of a written ten (10) year anti leak guarantee.				
E	4mm thick APP membrane applied to roof slabs	SM	12		
F	Ditto to skirting 200mm high	LM	11		
G	Dress membrane around 100mm rainwater outlet	No.	2		
	The Following Flat roof concrete tiles fixed with approved adhesive, laid and jointed with waterproofing bituminous compound				
H	20mm thick interlocking Concrete tiles of size 225 x 225mm	SM	12		
	ELEMENT NO. 6 EXTERNAL FINISHES **Carried to Main summary**				

Item	Description	Unit	QTY	RATE	AMOUNT
	PROPOSED GUARD HOUSE				
	BILL NO.1-BUILDERS WORKS				
	ELEMENT NO 7 - INTERNAL FINISHES				
	Internal Wall Finishes				
	Cement and sand (1:4) backings				
A	12mm thick to receive Ceramic Wall tiles	SM	12		
B	To receive ceramic wall tiles (m.s.)	SM	24		
	Ceramic wall tiles				
C	Supply and Fix 300x300x6mm thick ceramic wall tiles as approvedby Architect on prepared backings(m.s) with proprietary adhesive; jointed and pointed in matching coloured proprietary grouting: including pvc spacers and expansion joint as necessary: all to Architect's approval. - Wall Surfaces	SM	12		
	Ceramic floor tiles				
D	Supply and Fix Ceramic wall tiles as approved by Architect on prepared backings(m.s) with proprietary adhesive; jointed and pointed in matching coloured proprietary grouting: including pvc spacers and expansion joint as necessary: all to Architect's approval. - Wall Surfaces	SM	24		
	12mm (minimum) two coat lime plaster complete with wire gauze anti-crack mechanism at the intersection of masonry walling and concrete beams as described to:-				
E	Concrete/masonry surfaces	SM	8		
	Painting and Decoration				
	Prepare and apply one undercoat and one finishing coat first quality permaplast emulsion paint to:				
F	Plastered concrete/masonry surfaces internally	SM	8		
	Carried to Collection				

Item	Description	Unit	QTY	RATE	AMOUNT
	Ceiling finishes				
	12mm (minimum) two coat lime plaster complete with wire gauze anti-crack mechanism at the intersection of masonry walling and concrete beams as described to:-				
A	Soffits of Concrete surfaces	SM	12		
	Painting and Decoration				
	Prepare and apply one undercoat and one finishing coat first quality plastic emulsion paint on:-				
B	Plastered ceilings	SM	12		
	Carried to Collection				

Item	Description	Unit	QTY	RATE	AMOUNT
	COLLECTION				
	Total brought forward from page no:				
	Total brought forward from page no:				
	ELEMENT NO. 7 Carried to INTERNAL FINISHES Main summary				

Item	Description	Unit	QTY	RATE	AMOUNT
	PROPOSED GUARD HOUSE				
	BILL NO.1-BUILDERS WORKS **MAIN SUMMARY**				
1	**Substructures**				
2	**Reinforced Concrete Frame**				
3	**Walling**				
4	**Windows**				
5	**Doors**				
6	**External Finishes**				
7	**Internal Finishes**				
	TOTAL FOR 1 NO. GUARD HOUSE				
	NO. OF BLOCKS				
	MULTIPLY BY **1 NO.** OF GUARD HOUSE	**X 1**			
	TOTAL FOR 1 NO. GUARD HOUSE CARRIED TO GRAND SUMMARY				

GARBAGE RECEPTACLE

Item	Description	Unit	QTY	Rate	Amount
	PROPOSED GARBAGE RECEPTACLE				
	BILL NO.1-BUILDERS WORKS				
	ELEMENT NO 1 - SUBSTRUCTURES (ALL PROVISIONAL)				
	Site Clearance				
A	Clear site of all grass, hedges, shrubs, bushes grub up roots, load and remove from site and dispose at designated local authority areas.	SM	112		
B	Excavate average 300mm deep to remove top vegetable soil, load, remove from site and dump in designated local authority dump site.	SM	112		
C	Excavate for Strip foundations depth not exceeding 1.50 metres starting from Reduced ground levels.	CM	68		
D	Ditto to column bases	CM	4		
E	Extra over all type of excavation for excavating in soft rock	CM	7		
	Disposal of water				
F	Allow for keeping the whole of the excavation free from all spring and running water by pumping or any other such means as may be necessary	Item			
	Planking and strutting				
G	Allow for maintaining and upholding the sides of excavations and keeping excavations clear of all fallen materials, rubbish etc	Item			
	Carried to collection				

Item	Description	Unit	QTY	Rate	Amount
	Disposal of excavated material				
A	Load,wheel and cart away surplus excavated material to a Local Authority designated dumping site or fill soil heaps as away from site instructed by the Project Engineer.	CM	2		
B	Return, fill and ram selected excavated material around sides of foundations.	CM	70		
	Fillings				
C	300mm thick hardcore bed: hand packed : compacted in layers not exceeding 150mm thick: to the satisfaction of the Structural Engineer	SM	112		
D	50 mm Stone dust/ Murrum blinding to surfaces of hardcore	SM	112		
	Anti - termite to treatment				
E	Approved anti-termite treatment, with ten-year guarantee, sprayed to surfaces of hardcore strictly in accordance with manufacturer's instructions.	SM	112		
	Damp-proof membrane				
F	1000 gauge polythene or other equal and approved damp-proof membrane, laid over blinded hardcore (measured separately) with 300mm side and end laps (measured nett-allow for laps); 1 No. layer: bedded in and including cement and sand (1:3) mortar	SM	112		
	Concrete Blinding				
	Insitu concrete class 15/20 mm aggregates: vibrated:				
G	50 mm thick blinding under column bases	SM	14		
H	50 mm thick blinding under strip foundations	SM	45		
	In- situ vibrated reinforced concrete Class 25 MPa: in:				
I	Column bases	CM	4		
J	Strip foundations	CM	9		
K	100mm thick surface bed	SM	112		
L	Columns	CM	1		
	Carried to collection				

Item	Description	Unit	QTY	Rate	Amount
	Ribbed reinforcement steel bars to BS4449: 2005: Grade 500 high tensile strengthincluding bends, hooks, tying wire and distance blocks; to S.E's detail (Provisional)				
A	Assorted reinforcement	KGS	812		
	Mesh fabric reinforcement to BS 4483 BRC A142;200 x 200mm, weighing 2.22kg/m² (measured net - no allowance) for laps; in two layers - top & bottom; including bends, tying wire and spacer blocks)				
B	In ground floor slab	SM	112		
	Modular steel frame with 5mm thick steel plates covering formwork and/or marine board formwork: to:				
C	Sides of column bases	SM	17		
D	Sides of Strip foundations	SM	30		
E	Vertical sides to columns	SM	17		
F	Edge of slab not exceeding 150mm girth	LM	43		
	Foundation Walling				
	Natural quarry stones rough dressed; bedded in and including cement and sand (1:4) mortar; reinforced with and including 45 mm wide hoop iron gauge in alternate courses: in:				
G	200mm thick walls in foundations	SM	98		
	Pavings				
H	Supply and lay 600 x 600mm medium duty paving blocks round the building including laying, spreading and compacting 100mm thick approved sand bed blinding, with and including excavation, 150mm thick compacted hardcore and 50mm thick quarry dust blinding to approval.	SM	45		
	Plinth				
	25mm Thick cement and sand (1:4) rendering on concrete or masonry ; wood float finished; to				
J	Plinths externally	SM	30		
	Two coats black bitumastic paint on:				
K	Rendered surfaces	SM	30		
	Carried to collection				
	COLLECTION				
	Total brought forward from page no:				
	Total brought forward from page no:				
	Total brought forward from page no:				
	ELEMENT NO. 1 Carried to SUBSTRUCTURES Main summary				

Item	Description	Unit	QTY	Rate	Amount
	PROPOSED GARBAGE RECEPTACLE				
	BILL NO.1-BUILDERS WORKS				
	ELEMENT No 2 - R.C FRAME				
	In- situ vibrated reinforced concrete Class 25 MPa: in:				
A	Columns	CM	1		
B	Beams	CM	5		
	Ribbed reinforcement steel bars to BS4449: 2005:Grade 500 high tensile strength including bends, hooks, tying wire and distance blocks to S.E's detail (All provisional)				
C	Assorted reinforcement	Kg	783		
	Modular steel frame with 5mm thick steel plates covering formwork and/or marine board formwork: to				
D	Sides of columns	SM	27		
E	Sides and soffites of beams	SM	45		
	ELEMENT NO. 2 Carried to **R.C FRAME Main summary**				

Item	Description	Unit	QTY	Rate	Amount
	PROPOSED GARBAGE RECEPTACLE				
	BILL NO.1-BUILDERS WORKS				
	ELEMENT No 3-WALLING				
	WALLING				
	External Walling				
	Locally available and approved quarry stone walling with a minimum of 7.0 N/mm2 average compressive strength ;bedded and jointed in cement and sand (1:4) mortar, reinforced with and including 25 x 3 mm thick hoop iron strips at every alternate course as described in;				
A	200mm thick walling Externally	SM	97		
	Internal Walling				
	Locally available and approved quarry stone walling with a minimum of 7.0 N/mm2 average compressive strength ;bedded and jointed in cement and sand (1:4) mortar, reinforced with and including 25 x 3 mm thick hoop iron strips at every alternate course as described in;				
B	200mm thick walling Internally	SM	70		
C	Approved hessian based damp proof course to 200mm thick walling in cement/sand mortar	LM	75		
	ELEMENT NO. 3 WALLING **Carried to Main summary**				

Item	Description	Unit	QTY	Rate	Amount
	PROPOSED GARBAGE RECEPTACLE **BILL NO.1-BUILDERS WORKS** **ELEMENT NO 4-ROOF**				
A	IT5 roofing sheets on steel trusses with approved galvanised hook bolts, nuts and washers including side and end laps fixed to and including 100x50x4mm rafters spaced at 900mm c/c with 50x50x3mm SHS purlins at 600x600mm c/c with and including all welded and bolted connections : delivery to site and erection with and including one shop coat red oxide, zinc chromate or similar approved primer: complete to manufacturer's specifications	SM	101		
	ELEMENT NO. 4 ROOF **Carried to the Main summary**				

Item	Description	Unit	QTY	Rate	Amount
	PROPOSED GARBAGE RECEPTACLE				
	BILL NO.1-BUILDERS WORKS				
	ELEMENT NO 5-DOORS				
	External Doors				
	Steel Casement Door				
	Heavy gauge double steel louvered door, all primed with red oxide and spray painted 2 coats eggshell gloss paint; complete with hinges, stays, fasteners and necessary seremetals assembled and fixed to opening including cutting and pinning lugs to concrete or block work sorroung and bedding frame in cement and sand mortar (1:3).				
A	Double leaf door size 1600 x 2100mm high	NO	2		
B	Ditto overall Size 1200 x 2400mm high	NO	4		
	ELEMENT NO. 5 DOORS **Carried to Main summary**				

Item	Description	Unit	QTY	Rate	Amount
	PROPOSED GARBAGE RECEPTACLE				
	BILL NO.1-BUILDERS WORKS				
	ELEMENT NO 6 - EXTERNAL FINISHES				
	EXTERNAL WALL FINISHES				
	External Render				
	Cement and sand (1:3) render:wood floated: on concrete or blockwork: to				
A	15mm thick to beams, Columns, Slab Moulds and walling externally	SM	23		
B	Extra over horizontal and vertical pointing in 10mm thick rod in cement and sand mix (1:3) mortar including one coat Bituminous paint	LM	97		
	External Painting				
	Prepare and apply one coat undercoat and two finishing coats of long lasting exterior/ weatherguard paint or other equal and approved exterior quality paint to surfaces as described in:-				
C	Concrete/masonry surfaces externally-Beam, Column and Slab Moulds	SM	23		
	ELEMENT NO. 6 Carried to **EXTERNAL FINISHES Main summary**				

Item	Description	Unit	QTY	Rate	Amount
	PROPOSED GARBAGE RECEPTACLE				
	BILL NO.1-BUILDERS WORKS				
	ELEMENT NO 7 - INTERNAL FINISHES				
	Internal Wall Finishes				
	Cement and sand (1:4) backings				
A	32mm Thick coloured cement sand screed mix 1:3 finished to approval	SM	98		
	12mm (minimum) two coat lime plaster complete with wire gauze anti-crack mechanism at the intersection of masonry walling and concrete beams as described to:-				
B	Concrete/masonry surfaces	SM	237		
	Floor Finishes				
	Cement and sand (1:3) screeds, backings, beds etc				
C	32mm Thick coloured cement sand screed mix 1:3 finished with red oxide to approval	SM	98		
	ELEMENT NO. 7 Carried to INTERNAL FINISHES Main summary				

Item	Description	Unit	QTY	Rate	Amount
	BILL NO.1-BUILDERS WORKS **MAIN SUMMARY**				
1	**Substructures**				
2	**Reinforced Concrete Frame**				
3	**Walling**				
4	**Roof**				
5	**Doors**				
6	**External Finishes**				
7	**Internal Finishes**				
	TOTAL FOR 1NO. GARBAGE RECEPTACLES				
	NO. OF BLOCKS				
	MULTIPLY BY **1 NO.** OF RECEPTACLES	**X 1**			
	TOTAL FOR 1 NO. GARBAGE RECEPTACLES CARRIED TO GRAND SUMMARY				

UNDERGROUND WATER TANK

ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	UNDERGROUND WATER TANK				
	SUBSTRUCTURE (ALL PROVISIONAL)				
	Excavations				
A	Excavate over site to remove top soil average 200mm deep and cart away.	m²	60		
B	Excavate for pits commencing at reduced excavation level and not exceeding 1.50m deep.	m³	90		
C	Excavate for pits commencing at reduced excavation level and not exceeding 1.50-3m deep	m³	90		
D	Excavate for pits commencing at reduced excavation level and not exceeding 3-4.5m deep	m³	99		
E	Extra excavation for excavating in all types of rock and cart away.	m³	84		
F	Remove surplus excavated material from site.	m³	279		
	Disposal				
G	Allow for keeping the whole of the excavation free from all spring and running water by pumping or any other such means as may be necessary	Item	1		
H	Allow for planking and strutting to sides of already excavated surfaces and new excavated surfaces to keep excavations free from all fallen materials.	Item	1		
	Fillings				
J	Approved 300mm wide granular filling layers not exceeding 150mm thick	m²	60		
	Insitu concrete Class 15MPa: vibrated:				
K	Floor slab	m²	60		
	Carried to Collection				

ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	REINFORCED CONCRETE FRAME				
	Insitu concrete class 30MPa: vibrated: reinforced				
A	Beams	m^3	4		
B	250mm RC wall	m^2	19		
C	300mm RC wall	m^2	111		
D	300mm bottom slab	m^2	60		
E	200mm top slab	m^2	60		
F	Extra over for boxing to form opening size 600 x 450mm through 200mm thick reinforced concrete slab; rebated edges	No	4		
G	Sump	No	4		
	Ribbed reinforcement steel bars to KS 573:2014 : Grade 500 high tensile strengthincluding bends, hooks, tying wire and distance blocks; to S.E's detail (Provisional)				
H	Assorted reinforcement	kg	9,511		
	Modular steel frame with steel plates covering formwork and/or marine board formwork: to				
J	Sides of beams	m^2	29		
K	RC wall	m^2	261		
L	Soffits of suspended slab	m^2	60		
M	Edge of floor slab 150 - 225mm high.	m	32		
N	Edge of floor slab 225 - 300mm high.	m	32		
	Water Bar				
P	250mm wide PVC water bar	m	37		
	Carried to Collection				

ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	FINISHES				
	WALL FINISHES				
	15mm cement and sand rendering on concrete surfaces finished with a wood float to:-				
A	12mm Two coat external lime plaster on walls finished sm	m²	261		
	Waterproofing				
	25mm thick 2 coats lime waterproofed plaster in "penetron Plus" as described;				
B	300mm thick floor slab	m²	60		
C	Ditto to walls	m²	261		
	Plastic manhole				
E	Heavy duty plastic manhole cover and frame size 600x450mm wide with cover set in frame with grease	No	4		
F	Supply and fix approved 450mm, 10mm dia solid rungs wide stainless steel step ladder at 300mm centres fixed with SS bolts and nuts to structural details	No	4		
	Carried to Collection				
	UNDERGROUND WATER TANK				
	COLLECTION				
	Total brought forward from Page No.				
	TOTAL FOR UNDERGROUND TANK CARRIED TO SUMMARY				

ROAD WORKS

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	Preliminary and General Items				
A	Allow Provisional sum of Kenya shillings (KSh 50,000/=) for materials testing as instructed by the Engineer.	Prov. Sum	1	50,000.00	50,000.00
B	Extra Over on Item 1.01 for Contractors overheads and profits	%			
	Carried to Collection				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	Site Clearance and Topsoil Stripping				
A	Clear site including removal of trees (girth less than 300 mm), hedges, bushes and other vegetation and other deleterious materials, grub up roots and backfilling of holes left by removal of stumps and roots in accordance with the Specifications, as shown on the drawings and as instructed by Engineer.	m2	1483.00		
B	Removal of top soil to a maximum depth of 200 mm including excavation, loading and disposal	m3	297.00		
C	Cutting of trees of all girth above 300 mm including cutting of trunks, branches, uprooting and removal of all materials and stacking within the Right of Way and complete with filling of depressions/pits by earth including liaison with concerned authorities for obtaining permissions.				
	(i) Girth from 300 mm to 600 mm	№	10.00		
	(ii) Girth above 600 mm but up to 900 mm	№	12.00		
	(iii) Girth above 900 mm but up to 1800 mm	№	15.00		
D	Transpotation of the existing trees of girth above 600 mm girth as instructed by Engineer, including shifting of the tree and storing at locations as instructed by the Engineer.	№	27.00		
	Carried to Collection				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	Earthworks **No separate payments shall be made for the overhaul of the material and the cost of such haulage shall be included in the rates and or prices.**				
A	Cut to spoil in soft material	m3	1414.00		
B	As Item 5.01 but in hard material	m3	141.00		
C	Provide, Spread and compact rockfill in swampy areas	m3	141.00		
	Carried to Collection				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	Culvert and Drainage Works **No separate payment shall be made for the haulage of surplus or unsuitable excavated material and the cost of such haulage shall be included in the rates and/or prices**				
A	Excavate in soft material for pipe culverts, subsoil drains, headwalls, wing walls, aprons, toe walls, drop inlets, mitre drains, catch water drains and median drains including support of trench sides, backfilling and compacting as specified or as instructed by the Engineer.	m3	285.00		
B	As Item 8.01 but in hard material (any method)	m3	29.00		
C	Allow for hacking in existing concrete drain for junction connections	m3	10.00		
D	Allow for perforation and connecting to the existing drain including stoppage of inflowing water (hole approximately 600 widex800 high x 250 thick)	no.	4.00		
E	Provide, lay and joint 450 mm Internal Diameter (I. D.) Reinforced Cement Concrete pipes. The rate to include excavation, backfilling and compaction to drain formation level	m	4.00		
F	Ditto item 8.06 above but 600mm I.D. Reinforced Cement Concrete pipes	m	2.00		
G	Ditto item 8.06 above but 900mm I.D. Reinforced Cement Concrete pipes	m	1.00		
H	Provide place and compact class 25/20 concrete to headwalls, wingwalls, aprons and toe walls to pipe culverts.	m3	2.00		
J	Provide place and compact 150mm class 15/20 concrete to beds and surround to 450mm diameter pipes	m3	1.00		
K	Ditto item 8.11 above but 600mm I.D. Reinforced Cement Concrete pipes	m3	1.00		
L	Ditto item 8.11 above but 900mm I.D. Reinforced Cement Concrete pipes	m3	1.00		
M	Provide and joint 450mm diameter precast concrete invert block drain (IBD) channels with two double side precast side slabs of 600x225x75mm as lining for side drain including bedding and backfilling with selected material as directed by the Engineer.	m	190.00		
N	Provide and lay 450 Dia service ducts of length 10 m each as per the drawings and as instructed by the Engineer; Rate to include excavation, disposal of excavated material and concrete suurround	No.	20.00		
	Carried to Collection				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	Natural Material for Sub-base and Base **Measurements and payment by method 'A' as defined in the standard specifications. No separate payments shall be made for the overhaul of material and the cost of such haulage shall be included in the rates and or prices**				
A	Provide, place, water and compact Natural Gravel Material to 95% MDD (AASHTO T180) of sub base quality for base for the walkways of thickness 100mm and on the carriageway and parking to a consolidated thickness of not more than 300mm as shown in the drawings and as instructed by the Engineer	m3	1238.00		
B	Prepare surface provide, place, handpack (200mm in one layer)and compact quarry chips (natural blue stone) to refusal densities on the carriageway and parking as directed by the Engineer.	m3	530.00		
	Carried to Collection				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	Concrete Works				
A	Provide and fix on the carriageway and parking interlocking concrete paved unishaped blocks (monolithic single layer precast concrete blocks) of any specified colour/size &	m2	1483.00		
B	Extra over item 17.01 for laying blocks at speed bumps	m2	20.00		
C	Ditto item 17.01 above but for 60mm heavy duty blocks at the walkway	m2	143.00		
D	Provide, lay in place and joint 600x600x50mm well cured paving slabs on 50mm well compacted sand/quarry dust bed to footpaths/islands, Cloth drying areas and around the blocks as stipulated in the special Specifications.	m2	143.00		
	Carried to Collection				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	Road Furniture				
	Road Marking and Road Signs				
	Road Marking				
A	**Provide and lay hot applied thermoplastic road marking compound in approved colour and shade (ASTM 9) for road marking on bituminous surface on centerline, 100 mm, edge line 150 mm wide 3.0 mm thick, using fully automatic extrusion machine and using pre-melter for melting thermoplastic material including cleaning the surface of all dirt, dust, and other foreign matter, complete with demarcation at site/pre-marking, finishing and managing the traffic movements. Marking to be done as per the specifications, detailed drawings and as instructed by the Engineer.**				
	(i) For lane marking (broken lines) with white paint, 100 mm wide	m2	22.00		
	(ii) For lane marking with yellow paint, 100mm wide	m2	6.00		
	(iii) For raised kerb lines with black paint, 150 mm wide	m2	29.00		
	Other Road Furniture				
B	**Provide, lay and Joint complete with hauncing as shown on the drawings and as instructed by the Engineer**				
	(i) Raised Kerbs	m	568.00		
	(ii) Flush Kerbs	m	378.00		
C	Provide, lay and Joint complete with hauncing as shown on the drawings and as instructed by the Engineer 100 x 125 mm channels for the walkways and shallow drains	m	946.00		
	Carried to Collection				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
1	Preliminary and General Items				
2	Site Clearance and Topsoil Stripping				
3	Earthworks				
4	Culverts and Drainage Works				
5	Natural Material for Sub-base and Base				
6	Concrete Works				
7	Road Furniture				
	TOTAL FOR CIVIL WORKS ROAD CARRIED TO GRAND SUMMARY				

SEWER RETICULATION WORKS

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	FOUL DARAINAGE (ALL PROVISIONAL)				
	Site Clearance				
A	Clear site of all grass, hedges, shrubs, bushes grub up roots, load and remove from site and dispose at designated local authority areas.	SM	660		
	Excavations				
B	Excavate trenches for 150mm diameter sewer pipe starting from ground level;average depth 1.5m;Part backfill and remainder cart away.	LM	1100		
C	Allow fo plunking and strutting to all excavations during construction	ITEM	1		
D	Allow for keeping all excavations free from general waters	ITEM	1		
E	Extra over excavation in rock	CM	66		
	Provide materials, lay, joint and test approved pipes and fittings. Rates to include for handling, laying, all jointing materials and fixing as directed by the engineer.				
F	Provide lay and joint in trench dia 150mm Upvc golden brown class 34 Upvc pipe in flexible rubber ring joints	LM	1100		
	Mass concrete grade 15/20 in 150mm Thick Beds, Haunches and surrounds				
G	Provide and place 150mm thick concrete surround and bed haunch for 150mm diameter pipe	LM	1100		
	Manholes				
	Excavation quantities are given net. The rate entered are to include for manhole concrete slabs and covers, step irons or ladder, excavation, shuttering where necessary, refilling and compacting around the finished manholes, and disposing of surplus spoil is to be evenly spread. Excavation in any material other than rock				
	Masonary manhole 1050 mm , reinforced concrete manhole slab and cover.				
H	depth not exceeding 0.6 m.	NO	10		
I	depth not exceeding 0.9 m.	NO	6		
J	depth not exceeding 1.2 m.	NO	6		
	MANHOLES **Manhole size 1050 mm , reinforced concrete manhole slab and cover.**				
K	depth not exceeding 1.5 m.	NO	2		
L	ditto but depth; 1.5 - 2.0 m.	NO	2		
	MANHOLES				
	Manhole size 1200 mm , reinforced concrete manhole slab and cover.				
M	ditto but depth; 2 - 2.5 m.	NO	4		
	WASTE WATER				
N	Provide a provisional sum of Ksh Five Million, five hundred thousand only (5,500,000.00) for 800 P.E for builders works associated with waste water treatment plant/waste water disposal to be executed as authorized by the Engineer and to be measured and valued by the Quantity Surveyor in accordance with the Contract	sum	1	5,500,000	5,500,000.00
	TOTAL FOR SEWER				

CHAINLINK FENCE

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	CHAIN LINK FENCE				
	ELEMENT NO.1				
	SUBSTRUCTURES				
	(ALL PROVISIONAL)				
	Siteworks and Excavations				
	Excavations				
A	Excavate for Column bases depth not exceeding 1.50 metres starting groundlevel	CM	4		
	Disposal of water				
B	Allow an item for keeping all excavations free from all spring and running water by pumping or any other such means.	ITEM	1		
	Planking and strutting				
C	Allow an item for maintaining and upholding the sides of excavations and keeping excavations clear of all fallen materials.	ITEM	1		
	Carried to Collection				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	SUBSTRUCTURES-(CONTINUED)				
	Disposal of excavated materials				
A	Return, fill and ram selected excavated material around foundations.	CM	3		
B	Load,wheel and cart away surplus excavated material away from site	CM	1		
	Insitu concrete Class 15MPa: vibrated:				
C	Ditto to column bases	SM	4		
	In- situ vibrated reinforced concrete Class 20 MPa: in:				
D	column bases	CM	1		
E	Columns	CM	1		
	Carried to Collection				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	SUBSTRUCTURES-(CONTINUED)				
	Modular steel frame with steel plates covering formwork and/or marine board formwork: to:				
A	Ditto colum bases	SM	5		
	Ribbed reinforcement steel bars to KS 573:2014 : Grade 500 high tensile strengthincluding bends, hooks, tying wire and distance blocks; to S.E's detail (Provisional)				
B	Assorted Reinforcement (8 - 16mm bars)	KG	114		
	Carried to Collection				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	COLLECTION FROM PAGE BW/1 FROM PAGE BW/2 FROM PAGE BW/3				
	TOTAL FOR ELEMENT NO. 1 (SUBSTRUCTURES) CARRIED TO SUMMARY	**KSHS**			

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	ELEMENT NO. 2				
	REINFORCED CONCRETE SUPERSTRUCTURE				
	In- situ vibrated reinforced concrete Class 20 MPa: in:				
A	Columns	CM	1		
	Modular steel frame with steel plates covering formwork and/or marine board formwork: to:				
B	Vertical sides of columns	SM	11		
	Ribbed reinforcement steel bars to KS 573:2014 : Grade 500 high tensile strengthincluding bends, hooks, tying wire and distance blocks; to S.E's detail (Provisional)				
C	Assorted Reinforcement (8 - 16mm bars)	KG	108		
	TOTAL FOR ELEMENT NO. 2 (REINFORCED CONCRETE) CARRIED TO SUMMARY				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	ELEMENT NO. 3				
	WALLING				
	Precast concrete class 20/20 coping as described in;				
A	600 x 350 wide x 100mm thick insitu cast reinforced concrete coping, throated and weathered and jointing to columns with cement sand 1:4 mortar	NO	4		
	TOTAL FOR ELEMENT NO. 3 (WALLING) CARRIED TO SUMMARY				

ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	ELEMENT NO. 4				
	EXTERNAL FINISHES				
	15mm (minimum) two coat lime plaster complete with wire gauze anti-crack mechanism at the intersection of masonry walling and concrete beams as described to:-				
A	Columns	SM	7		
	GATES				
	Mild steel sections as described in;				
B	6000mm wide x 2400mm high double gate comprising of 50x50x3mm RHS framing and middle rail 50x25x3mm RHS Vertical infill members at 225mm centres;priming with red oxide primer; purpose made ironmongery; all necessary lugs and grouting as per details (all with roller at the ground)	NO	3		
C	Ditto pedestrian gate size 900x1800 ditto	NO	3		
	Green Fencing with Chainlink				
D	2400mm High chainlink fencing : comprising 16 gauge chainlink fixed to and including precast concrete posts :holes for and including 8No strands 16 gauge galvanised barbed wire : 16 gauge high tensile galvanised straining vertical wire at 250 centres : 700 x 600 x 650mm deep plain concrete (class 20) base at 3000mm centres : strutting posts : including planting and maintenace to maturity of bouganvillea shrubs along the fenceline; all necessary excavations and disposal	LM	180		
	TOTAL FOR ELEMENT NO. 4 (EXTERNAL FINISHES) CARRIED TO SUMMARY				

ITEM	DESCRIPTION				AMOUNT
	SECTION SUMMARY - BOUNDARY WALL				
1	**SUBSTRUCTURES FROM PAGE.....**	BW/4			-
2	**R.C. SUPERSTRUCTURE FROM PAGE.....**	BW/5			-
3	**WALLING FROM PAGE.....**	BW/6			-
4	**EXTERNAL FINISHES FROM PAGE.....**	BW/7			-
	TOTAL FOR CHAINLINK FENCE CARRIED TO GRAND SUMMARY				-

MECHANICAL WORKS

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
B	**SANITARYWARE INSTALL ONLY**				
I	**GROUND FLOOR**				
	INSTALL ONLY				
	Supply and deliver the following appliances including their support brackets,				
	WC suite				
1	Dual flush close couple toilet suite complete with Push button dual flush system, Comes with Soft Close Seat Cover, WC Connector, fixing brackets, PEX – O14 Fanski Flexible Connector: 1/2in x 1/2in x 30cm, Angle Valve, with Extension: 1/2 x 1/2in	No.	6		
	Washbasin and Tap				
2	White Drop In Basin - with full pedestal -White, One central taphole fixing brackets, PVC Bottle Trap and waste 1.25in x 40, Chrome Tempo Push-Delay Action Basin Tap, PEX – O14 Fanski Flexible Connector: 1/2in x 1/2in x 30cm, Angle Valve, with Extension: 1/2 x 1/2in	No.	9		
	Shower & Fittings				
3	Concealed shower fittings comprising of plastic shower arm, stop cock and bib tap,Instant Shower 3kW Element, Shielded selection switch, Adjustable three temperatures, hard and salty water application	No	9		
	Kitchen sink and Tap				
4	Single Bowl Single Drain Stainless Steel Kitchen Sink, PVC Bottle Trap and waste 1.5in x 40, Long Neck Wall type Bib Tap	No.	2		
	Bathroom Accessories				
5	Robe Hook (Single), Chrome Plated	No.	15		
6	Vertical Soap Dispenser: Satin	No.	3		
7	Toilet Roll Holder	No.	6		
8	Bathroom Mirror, (80×60)cm	No.	9		
	Hand Drier				
9	Sensor operated hand dryer with steel cover, white Epoxy finish c/w with HEPA filter media, and also with the filter and the ionizer "Ion Hygienic" together,	No.	3		
	Fire blankets				
10	Fire Blanket (1.2 x 1.2m)	No.	1		
	Urinal				
11	Urinal bowl white - top entry complete with zeda:bottle trap and waste 1.5in x 40, exposed (top entry) urinal flush valve 40mm, White Wall Hung Urinal Divider	No.	5		
	Disabled WC Suite				
12	**Close Couple** one piece wc, s trap, with soft close seat and twin flush fittings, and wc connector, angle valve and flex hose, crane wall hung wash basin 665 x 545 x 190mm c/w bottle trap, angle valve, flex hose,clinical single lever basin tap, 1no. wall mounted grab bar 600 mm long, 1No. wall mounted hinged hand rail 750 x 100 mm, 1no. door mounted grab bar 600 mm long	No.	2		
	Dhobi sink and Tap				
13	Terrazzo Dhobi Sink, PVC Bottle Trap and waste 1.5in x 40, Long Neck Wall type Bib Tap	No.	4		
	Arabic Shower				
14	Supply & Installation of an Arabic shower c/w relevant accessories & Fittings	No.	6		
	Total For 1No. Floor				
					1.00
	Total For 1No. Floor				
	TOTAL TO SANITARYWARE SUPPLY COLLECTION PAGE				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
II	**TYPICAL 1ST- 7TH FLOOR** **INSTALL ONLY** Supply and deliver the following appliances including their support brackets, screws etc.				
	WC suite				
1	Dual flush close couple toilet suite complete with Push button dual flush system, Comes with Soft Close Seat Cover, WC Connector, fixing brackets, PEX – O14 Fanski Flexible Connector: 1/2in x 1/2in x 30cm, Angle Valve, with Extension: 1/2 x 1/2in	No.	8		
	Washbasin and Tap				
2	White Drop In Basin - with full pedestal -White, One central taphole fixing brackets, PVC Bottle Trap and waste 1.25in x 40, Chrome Tempo Push-Delay Action Basin Tap, PEX – O14 Fanski Flexible Connector: 1/2in x 1/2in x 30cm, Angle Valve, with Extension: 1/2 x 1/2in	No.	8		
	Shower & Fittings				
3	Concealed shower fittings comprising of plastic shower arm, stop cock and bib tap,Instant Shower 3kW Element, Shielded selection switch, Adjustable three temperatures, hard and salty water application	No	10		
	Kitchen sink and Tap				
4	Single Bowl Single Drain Stainless Steel Kitchen Sink, PVC Bottle Trap and waste 1.5in x 40**,** Long Neck Wall type Bib Tap	No.	4		
	Bathroom Accessories				
5	Robe Hook (Single), Chrome Plated	No.	10		
6	Vertical Soap Dispenser: Satin	No.	2		
7	Toilet Roll Holder	No.	8		
8	Bathroom Mirror, (80×60)cm	No.	8		
	Hand Drier				
9	Sensor operated hand dryer with steel cover, white Epoxy finish c/w with HEPA filter media, and also with the filter and the ionizer "Ion Hygienic" together,	No.	2		
	Fire blankets				
10	Fire Blanket (1.2 x 1.2m)	No.	1		
	Urinal				
11	Urinal bowl white - top entry complete with zeda:bottle trap and waste 1.5in x 40, exposed (top entry) urinal flush valve 40mm, White Wall Hung Urinal Divider	No.	6		
	Dhobi sink and Tap				
12	Terrazzo Dhobi Sink, PVC Bottle Trap and waste 1.5in x 40, Long Neck Wall type Bib Tap	No.	8		
	Arabic Shower				
13	Supply & Installation of an Arabic shower c/w relevant accessories & Fittings	No.	8		
	Total For 1No. Floor				
					7.00
	Total For 7No. Floor				
	TOTAL TO SANITARYWARE SUPPLY COLLECTION PAGE				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	SANITARY INSTALL COLLECTION PAGE				
I	Ground Floor				
II	Typical 1st, to 7th, Floor Typical				
	Sub Total For 1No. Block				
					1.00
	Total For 1No. Block				
	TOTAL TO MAIN SUMMARY PAGE				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
C	**INTERNAL PLUMBING**				
I	**GROUND FLOOR**				
	Supply, deliver install, Test and Commission: **PP-R (Polypropylene Random Co-polymer)** pipes **PN 20** and fittings and fusion joints to **(KS ISO 15874 Part 1, 2, 3 & 5)** of approved manufacturer. Rates must allow for all Metal/plastic threaded adaptors where required for the connection of sanitary fixtures, valves, sockets, sliding and fixed joints etc. as required in the running lengths of pipework. The pipes shall run in floors and wall chase. The pipes will be pressure tested before the plastering of wall commences and as per the manufacturers recommended testing pressures.				
	Cold Water				
1	25mm diameter PPR Pipes	LM	55		
2	32mm diameter PPR Pipes	LM	40		
3	40mm diameter PPR Pipes	LM	25		
	Extra over PPR tubing for the following:				
4	25mm diameter PPR 90° elbow	No.	15		
5	32mm diameter PPR 90° elbow	No.	30		
6	40mm diameter PPR 90° elbow	No.	16		
	Tees				
7	25mm diameter PPR equal tee	No.	9		
8	32mm diameter PPR equal tee	No.	10		
9	40mm diameter PPR equal tee	No.	10		
	Reducer Coupling				
10	25x20mm diameter PPR reducer coupling	No.	25		
11	32x25mm diameter PPR reducer coupling	No.	10		
12	40x32mm diameter PPR reducer coupling	No.	10		
	Reducer Tees				
13	25x20mm diameter PPR reducer tees	No.	10		
14	32x25mm diameter PPR reducer tees	No.	15		
15	40x32mm diameter PPR reducer tees	No.	8		
16	40x25mm diameter PPR reducer tees	No.	8		
	Union				
16	25mm diameter PPR union	No.	9		
17	32mm diameter PPR union	No.	7		
18	40mm diameter PPR union	No.	4		
	Gate Valves				
19	40mm dia approved high pressure screw- down full way non-rising stem solid wedge disc gate valve to (KS ISO 15874 Part 1, 2, 3 & 5) for Series B Rating with wheel head and metal/plastic adaptors to PPR tubing. Valve to be as "Crane Model " or equal and approved	No.	8		
20	63mm ditto	No.	4		
	TOTAL TO NEXT PAGE				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	Balance brought forward				
	PPR Male threaded adaptors (Brass threads).				
21	20 x ¾"ø dia Male threaded adaptors (Brass threads).	No.	20		
22	25 x 1"ø dia ditto	No.	12		
23	40 x 11/2"ø dia ditto	No.	8		
24	63 x 11/2"ø dia ditto	No.	8		
	PPR Male/Female threaded elbows (Brass threads).				
25	20 x ¾"ø dia female threaded adaptors (Brass threads).	No.	22		
26	25 x 1"ø dia ditto	No.	10		
27	32 x 11/4"ø dia ditto	No.	8		
28	63 x 11/2"ø dia ditto	No.	8		
	Total for 1No. Floor				
					1.00
	Total for 1No. Floor				
	TOTAL TO INTERNAL PLUMBING COLLECTION PAGE				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
C II	**INTERNAL PLUMBING** **TYPICAL 1ST TO 7TH FLOOR**				
	Supply, deliver install, Test and Commission: **PP-R (Polypropylene Random Co-polymer)** pipes **PN 20** and fittings and fusion joints to **(KS ISO 15874 Part 1, 2, 3 & 5)** of approved manufacturer. Rates must allow for all Metal/plastic threaded adaptors where required for the connection of sanitary fixtures, valves, sockets, sliding and fixed joints etc. as required in the running lengths of pipework. The pipes shall run in floors and wall chase. The pipes will be pressure tested before the plastering of wall commences and as per the manufacturers recommended testing pressures.				
	Cold Water				
1	25mm diameter PPR Pipes	LM	25		
2	32mm diameter PPR Pipes	LM	45		
3	40mm diameter PPR Pipes	LM	15		
	Extra over PPR tubing for the following:				
4	25mm diameter PPR 90° elbow	No.	15		
5	32mm diameter PPR 90° elbow	No.	28		
6	40mm diameter PPR 90° elbow	No.	16		
	Tees				
7	25mm diameter PPR equal tee	No.	9		
8	32mm diameter PPR equal tee	No.	10		
9	40mm diameter PPR equal tee	No.	10		
	Reducer Coupling				
10	25x20mm diameter PPR reducer coupling	No.	18		
11	32x25mm diameter PPR reducer coupling	No.	10		
12	40x32mm diameter PPR reducer coupling	No.	10		
	Reducer Tees				
13	25x20mm diameter PPR reducer tees	No.	18		
14	32x25mm diameter PPR reducer tees	No.	10		
15	40x32mm diameter PPR reducer tees	No.	12		
16	40x25mm diameter PPR reducer tees	No.	10		
	Union				
16	25mm diameter PPR union	No.	4		
17	32mm diameter PPR union	No.	8		
18	40mm diameter PPR union	No.	3		
	Gate Valves				
19	40mm dia approved high pressure screw- down full way non-rising stem solid wedge disc gate valve to (KS ISO 15874 Part 1, 2, 3 & 5) for Series B Rating with wheel head and metal/plastic adaptors to PPR tubing. Valve to be as "Crane Model " or equal and approved	No.	8		
20	63mm ditto	No.	4		
	TOTAL TO NEXT PAGE				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	Balance brought forward				
	PPR Male threaded adaptors (Brass threads).				
21	20 x ¾"ø dia Male threaded adaptors (Brass threads).	No.	28		
22	25 x 1"ø dia ditto	No.	12		
23	40 x 11/2"ø dia ditto	No.	8		
24	63 x 11/2"ø dia ditto	No.	4		
	PPR Male/Female threaded elbows (Brass threads).				
25	20 x ¾"ø dia female threaded adaptors (Brass threads).	No.	28		
26	25 x 1"ø dia ditto	No.	10		
27	32 x 11/4"ø dia ditto	No.	8		
28	63 x 11/2"ø dia ditto	No.	4		
	Total for 1No. Floor				
					7.00
	Total for 7No. Floor				
	TOTAL TO INTERNAL PLUMBING COLLECTION PAGE				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
C	**INTERNAL PLUMBING COLLECTION PAGE**				
I	Ground Floor				
II	Typical 1st To 7th Floor				
	Sub Total For 1No. Block				
	Total For 1No. Blocks				**1.00**
	TOTAL TO MAIN SUMMARY PAGE				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
D	**FOUL DRAINAGE**				
I	**GROUND FLOOR**				
	Supply, deliver and install the following uPVC Unplasticized Polyvinyl chloride) to (KS ISO 1452 Part 1, 2, 3, 4 & 5) Heavy gauge soil and waste system. Allow for all the various sizes of adaptor, connectors, sockets, holderbats, clips etc not measured but required for the satisfactory functioning of the system.				
	Note: Trade Names Caradon Terrain Ltd's pipe and fittings have been used as a guide to the type and quality of materials required. Other brands must be equal and approved in writing by the Engineer inconsistency shall not be accepted.				
	SOIL & WASTE DRAINAGE				
	Above Ground				
	MuPVC waste System conforming to BS 5255				
1	32Φ Waste pipe	LM	8		
2	40Φ Waste pipe	LM	18		
3	50Φ Waste pipe	LM	30		
4	100Φ Waste pipe	LM	30		
	Extra over MuPVC waste pipework for the following:				
5	32Φ 90 degree sweep Bend	No.	6		
6	40Φ 90 degree sweep Bend	No.	22		
7	50Φ 90 degree sweep Bend	No.	20		
8	100Φ 90 degree sweep Bend	No.	18		
9	32Φ Sweep Tee	No.	4		
10	40Φ Sweep Tee	No.	14		
11	50Φ Sweep Tee	No.	14		
12	100Φ Sweep Tee	No.	14		
13	100Φ Double Branch	No.	4		
14	32Φ Access plug	No.	2		
15	40Φ Access plug	No.	6		
16	50Φ Access plug	No.	8		
17	100Φ Access plug	No.	10		
18	32mm dia - socket	No.	2		
19	40mm dia - socket	No.	5		
20	50mm dia - socket	No.	8		
21	100mm dia - socket	No.	8		
	TOTAL TO NEXT PAGE				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	Balance brought forward				
22	50 x 32mm dia - socket reducer	No.	2		
23	50 x 40mm dia - socket reducer	No.	8		
24	100 x 50mm dia - Reducer Tee	No.	8		
25	100 x 50 Floor traps complete with Plastic Grating	No.	5		
26	100Φ Vent Cowl	No.	6		
27	Allow for 2" PVC pipe sleeves through/ on side of the columns in bathrooms	LM	4		
	Total For 1No. Floor				
	TOTAL TO INTERNAL DRAINAGE COLLECTION PAGE				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
II	**TYPICAL 1ST TO 7TH FLOOR**				
	Supply, deliver and install the following uPVC Unplasticized Polyvinyl chloride) to (KS ISO 1452 Part 1, 2, 3, 4 & 5) Heavy gauge soil and waste system. Allow for all the various sizes of adaptor, connectors, sockets, holderbats, clips etc not measured but required for the satisfactory functioning of the system.				
	Note: Trade Names Caradon Terrain Ltd's pipe and fittings have been used as a guide to the type and quality of materials required. Other brands must be equal and approved in writing by the Engineer inconsistency shall not be accepted.				
	SOIL & WASTE DRAINAGE				
	Above Ground				
	MuPVC waste System conforming to BS 5255				
1	32Φ Waste pipe	LM	8		
2	40Φ Waste pipe	LM	32		
3	50Φ Waste pipe	LM	60		
4	100Φ Waste pipe	LM	50		
	Extra over MuPVC waste pipework for the following:				
5	32Φ 90 degree sweep Bend	No.	6		
6	40Φ 90 degree sweep Bend	No.	28		
7	50Φ 90 degree sweep Bend	No.	20		
8	100Φ 90 degree sweep Bend	No.	10		
9	32Φ Sweep Tee	No.	4		
10	40Φ Sweep Tee	No.	10		
11	50Φ Sweep Tee	No.	14		
12	100Φ Sweep Tee	No.	18		
13	100Φ Double Branch	No.	2		
14	32Φ Access plug	No.	2		
15	40Φ Access plug	No.	8		
16	50Φ Access plug	No.	12		
17	100Φ Access plug	No.	5		
18	32mm dia - socket	No.	2		
19	40mm dia - socket	No.	8		
20	50mm dia - socket	No.	12		
21	100mm dia - socket	No.			
	TOTAL TO NEXT PAGE				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	Balance brought forward				
22	50 x 32mm dia - socket reducer	No.	2		
23	50 x 40mm dia - socket reducer	No.	8		
24	100 x 50mm dia - Reducer Tee	No.	8		
25	100 x 50 Floor traps complete with Plastic Grating	No.	8		
26	100Φ Vent Cowl	No.	6		
27	Allow for 2" PVC pipe sleeves through/ on side of the columns in bathrooms	LM	4		
	Total for 1 No. Floor				
					7.00
	Total for 7 No. Floor				
	TOTAL TO INTERNAL DRAINAGE COLLECTION PAGE				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
D	**INTERNAL DRAINAGE COLLECTION PAGE**				
I	Ground Floor				
II	Typical 1st To 7th Floor				
	Sub Total For 1No. Block				
					1.00
	Total For 1No. Blocks				
	TOTAL TO MAIN SUMMARY PAGE				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
E	**EXTERNAL FOUL DRAINAGE**				
I	**HOSTEL BLOCK**				
	Supply, deliver and install the following uPVC (Unplasticized Polyvinyl chloride) to (KS ISO 1452 Part 1, 2, 3, 4 & 5) Heavy gauge soil and waste system. Allow for all the various sizes of adaptor, connectors, sockets, holderbats, clips etc not measured but required for the satisfactory functioning of the system.				
	Below Ground				
	MuPVC waste System conforming to BS 5255				
1	100.4.40 Soil and Vent pipe	LM	90		
2	100.6.60 Soil and Vent pipe	LM	160		
3	101.4.90 Sweep bend	No.	18		
4	100Φ 45 degree sweep Bend	No.	7		
5	104.6.92 Single branch	No.	4		
6	136.4 Access Cap	No.	9		
	Gully Trap - Concrete Cover				
7	Allow for a masonry gully trap of size 300 x 300 x450 mm deep with cast Iron P-Trap, cast iron grating, drain pipe, concrete cover, etc.	No.	8		
	Inspection Chambers				
8	Allow excavation and concreting to Class 1:3:6, walling 150 mm thick solid concrete block walls with 1:3 mortar and plastering to 1:2, rectangular Cast Iron heavy duty cover and MS frame with double air seal for manhole not exceeding 1000 mm depth.	No.	20		
	Sub Total For 1No. Block				
					1.00
	Total For 1No. Blocks				
	TOTAL TO MAIN SUMMARY PAGE				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
E					
II	**EXTERNAL FOUL DRAINAGE SUMMARY PAGE**				
I	Hostel Block				**0.00**
	Total For 1No. Block				
					1.00
	Total For 1No. Block				
	TOTAL TO MAIN SUMMARY PAGE				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
F	**RAINWATER DRAINAGE**				
	HOSTEL BLOCK				
	Supply, deliver and install UPVC (Unplasticized Polyvinyl chloride) to (KS ISO 1452 Part 1, 2, 3, 4 & 5) rainwater pipework. Allow for all flanges, couplings, nipples, connector joints, fixing clips holder bats etc as required in running length of pipework but not measured.				
I	uPVC Rainwater system conforming to BS 4576				
1	100mm dia pipe	LM	260		
2	100mm Sweep bend	No.	16		
3	100mm Sweep Tee	No.	8		
3	100mm dia Fulbora Outlets	No	10		
	Sub Total For 1No. Block				
					1.00
	Total For 1No. Blocks				
	TOTAL TO MAIN SUMMARY PAGE				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
G I	**HOSEREELS, FIRE EXTINGUISHERS** **HOSTEL BLOCK**				
	GI Class 'B' tubing to KS06-259 with screwed and socketed joints to KS ISO 7-1:1994 including all range piping, fittings, hanagers, supports, brackets, and supports				
1	25mm diameter Black Pipe	Lm	10		
2	50mm diameter ditto	Lm	55		
	Extra over GMS tubing for the following:				
3	25mm diameter Black Pipe elbow	No.	16		
4	50mm dia ditto	No.	6		
	Tees				
5	25mm Black Pipe equal tee	No.	8		
6	50mm ditto	No.	8		
	Reducing Bushes				
7	25 x 20mm Black Pipe reducing bush	No.	8		
8	50 x 25 mm ditto	No.	8		
	Coupler				
9	25mm diameter Coupler	No.	5		
10	50mm ditto	No.	12		
	Gate Valves				
11	25mm dia high pressure screw- down full way non-rising stem solid wedge disc gate valve to BS 5154 PN 16 for Series B Rating with wheel head and joints to steel tubing. As "Crane Model 156 " or equal and approved	No.	8		
12	50mm ditto	No.	3		
	Pressure Gauge				
13	50mm diameter Pressure Gauge as Pakkens or equal and approved	No.	1		
	Hosereels				
14	Non recessed swinging type hosereel complete with 30 metres of 20mm internal diameter rubber fire hose with nylon spray/jet shut off nozzle , conforming to BS 5274 complete with 25mm diameter Pressure Gauge as Pakkens or equal and approved	No.	8		
15	Wire brush , clean, and paint complete installation with one coat of red oxide primer, undercoat, and gloss coat to Architects colour including banding and colour coding to British Standards	Sum	1		
	Fire Extinguishers				
16	5kg portable water/CO2 (gas cartridge) fire extinguisher conforming to BS 5423 complete with support brackets	No.	8		
17	9 kg portable dry chemical powder extinguisher conforming to BS 5423 complete with support brackets and approvedopriate charge of powder and CO2 cartridge.	No.	8		
18	12kg automatic Dry Powder Fire Extinguisher mounted over generators, witch room	No.	3		
	TOTAL TO NEXT PAGE				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	Balance brought forward				
19	Supply and fix signs indicating the words "FIRE POINT" in 80mm high letters	No.	5		
20	50mm non-return valve	No.	1		
21	50mm dia in-line strainer	No.	1		
22	Electrical wiring from local supply left within 10 metres within the pump room to control panel, from control panel to electric motors and from level controls to control panel.	Sum	1		
23	Allow for 50mm dia. Pressure Reducing Valve	No.	1		
	Sub Total For 1No. Block				
					1.00
	Total For 1No. Blocks				
	TOTAL TO FIRE HOSEREEL SUMMARY PAGE				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
G	**FIRE HOSEREEL SUMMARY PAGE**				
I	Hostel Block				**0.00**
	TOTAL TO MAIN SUMMARY PAGE				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
H	**DRY RISER (G+7)**				
	Supply , deliver and install Galvernised Iron (GI) Pipe to K-SS36 Class B, socketed joints to K-SS36 and Groove fittings including fixing and jointing. Tenderers must allow in their pipework prices for Galvanised Support Brackets, Clamping screw, Threaded Rod, Bolts & all the couplings, connectors, joints etc. required in the running length of pipework and also where necessary, for pipe fixing clips, holderbats plugged and screwed, brackets and pipe sleeves through structural members.				
1	100mm diameter Black Pipe	LM	55		
	Extra over Black Pipe tubing for the following:				
	Bends				
2	100mm diameter bend	No.	10		
	Tees				
3	100mm ditto	No.	8		
	Reducing Bushes				
4	100x65mm Black Pipe reducing bush	No.	10		
	Couplers				
5	100mm diameter Black Pipe union	No.	14		
	Flanges				
6	65mm dia Black Pipe flanges(pair, including bolts, nuts and gasket)	No.	10		
	Landing Valve				
7	65mm diameter landing valve as Merry -Weather "Equery" constant pressure outlet with flanged inlet and 1No. 65mm dia female instantaneous outlet with blank cap and chain.	No.	8		
	Fire Hose				
8	65mmdia x30m long canvas hose as specified	No.	1		
9	Hose cradle for above canvas hose	No.	1		
10	65mm dia branch pipe complete with nozzle/spray	No.	7		
	Gate Valves				
11	100mm dia approved high pressure screw- down full way non-rising stem solid wedge disc gate valve to BS 5154 PN 16 for Series B Rating with wheel head and joints to steel tubing. As "Crane Model 156 " or equal and approved	No.	1		
12	100mm 2-way horizontal mounted pumping in breeching inlet to BS 5041 Part 3 and horizontal inlet box with door fitted with Georgian wired glass panel to BS5041 Part 5. Inclussive of Breeching inlet cabinet as specified complete with access break glass and painted	Item	1		
13	25mm dia Air Relief Valve as specified	No.	1		
14	Wire brush , clean, and paint complete installation with one coat of red oxide primer, undercoat, and gloss coat to Architects colour including banding and colour coding to British Standards	Sum	1		
	Pressure testing and Painting				
15	Allow for pressure testing of the entire Dry riser installation and obtain relevant test certificates endorsed by the Engineer or his representative.	Sum	1		
	Sub Total For 1No. Block				**0.00**
	Sub Total For 1No. Blocks		1		**0.00**
	TOTAL COST FOR DRY RISER TO MAIN SUMMARY PAGE				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
I	**INTERNAL PLUMBING - RISERS, DROPPERS, & ROOF**				
	Supply, deliver and install PN20 PPR pipes and fittings for sizes up to 110mm for cold water. Tenderers must allow in their pipework prices for all the couplings, connectors, joints etc. required in the running length of pipework and also where necessary, for pipe fixing clips, holder bats plugged and screwed, brackets, and pipe sleeves through structural members. The solvent weld shall be by a heat gun as recommended by the manufacturer.				
	Cold Water				
1	32mm diameter PPR Pipes	Lm	24		
2	40mm diameter PPR Pipes	Lm	40		
3	50mm diameter PPR Pipes-Rising Main	Lm	60		
4	50mm diameter PPR Pipes - Dropper for 2nd and 3ard Floors	Lm	40		
5	63mm diameter PPR Pipes Dropper from Roof Tank to Wet Areas	Lm	115		
5	100mm diameter GI Pipes at Roof Terrace Painted	Lm	100		
	Extra over PPR tubing for the following:				
6	32mm diameter PPR 90° elbow	No.	10		
7	40mm diameter PPR 90° elbow	No.	10		
8	50mm diameter PPR 90° elbow	No.	16		
9	63mm diameter PPR 90° elbow	No.	12		
9	100mm diameter GI 90° elbow painted	No.	12		
	Tees				
10	32 mm diameter PPR equal tee	No.	10		
11	40 mm diameter PPR equal tee	No.	10		
12	50 mm diameter PPR equal tee	No.	20		
13	63mm diameter PPR 90° equal tee	No.	35		
12	100 mm diameter GI equal tee painted	No.	4		
14	32x25mm diameter PPR reducer coupling	No.	4		
15	40x32mm diameter PPR reducer coupling	No.	4		
16	63x50mm diameter PPR reducer coupling	No.	25		
16	100x63mm diameter GI-PPR reducer coupling painted	No.	4		
	Unions				
17	32mm diameter PPR socket	No.	4		
18	40mm diameter PPR socket	No.	10		
19	50 mm diameter PPR socket	No.	20		
20	63 mm diameter PPR socket	No.	30		
20	100 mm diameter GI socket painted	No.	5		
	TOTAL TO NEXT PAGE				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	Balance brought forward				
	Gate Valves				
21	32mm dia approved high pressure screw- down full way non-rising stem solid wedge disc gate valve to BS 5154 PN 16 for Series B Rating with wheel head and joints to steel tubing. As "Crane Model 156 "	No.	16		
22	40mm ditto	No.	16		
23	50mm ditto	No.	4		
24	63mm ditto	No.	6		
25	100mm ditto	No.	2		
	PPR Male/Female threaded adaptors (Brass threads).				
26	32 x1 1/4"ø dia threaded adaptors (Brass threads).	No.	32		
27	40 x1 1/2"ø dia threaded adaptors (Brass threads).	No.	32		
26	50 x2"ø dia threaded adaptors (Brass threads).	No.	8		
27	63 x2 1/2"ø dia threaded adaptors (Brass threads).	No.	24		
28	100 x 4"ø dia GI threaded adaptors (Brass threads). Painted	No.	4		
29	50mm diameter Pressure reducing valve with self-contained replaceable cartridge. Brass body. With pressure regulating scale for manual pressure adjustment. Stainless steel strainer cartridge with transparent housing, With replacement strainer and key to service strainer and cartridge, Male union connections, Strainer mesh size Ø: 0,28 mm,Max. working temperature: 40°C Certified to EN 1567.	No.	1		
	Sub Total For 1No. Block				
					1.00
	Total For 1No. Blocks				
	TOTAL TO MAIN SUMMARY PAGE				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	MAIN SUMMARY PAGE				
B	Sanitary Fittings Install Only				
C	Internal Plumbing				
D	Internal Foul Drainage				
E	External Foul Drainage				
F	Rainwater Drainage				
G	Hosereel System				
H	Dry Riser				
I	Internal Plumbing-Risers, Droppers, and Roof				
	TOTAL COST FOR MECHANICAL WORKS (INCL 16% VAT)				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	STUDENT CENTER				
B	**SANITARY INSTALL ONLY** Install the following appliances including their support brackets, screws etc.				
	WC suite				
1	Dual flush close couple toilet suite complete with Push button dual flush system, Comes with Soft Close Seat Cover, WC Connector, fixing brackets, PEX – O14 Fanski Flexible Connector: 1/2in x 1/2in x 30cm, Angle Valve, with Extension: 1/2 x 1/2in	No.	8		
	Washbasin and Tap				
2	White Drop In Basin - with full pedestal -White, One central taphole fixing brackets, PVC Bottle Trap and waste 1.25in x 40, Chrome Tempo Push-Delay Action Basin Tap, PEX – O14 Fanski Flexible Connector: 1/2in x 1/2in x 30cm, Angle Valve, with Extension: 1/2 x 1/2in	No.	10		
	Kitchen sink and Tap				
3	Single Bowl Single Drain Stainless Steel Kitchen Sink, PVC Bottle Trap and waste 1.5in x 40, Long Neck Wall type Bib Tap	No.	1		
	Bathroom Accessories				
4	Robe Hook (Single), Chrome Plated	No.	8		
5	Vertical Soap Dispenser: Satin	No.	2		
6	Toilet Roll Holder	No.	8		
7	Bathroom Mirror, (80×60)cm	No.	10		
	Fire blankets				
8	Fire Blanket (1.2 x 1.2m)	No.	1		
	Urinal				
9	Urinal bowl white - top entry complete with zeda:bottle trap and waste 1.5in x 40, exposed (top entry) urinal flush valve 40mm, White Wall Hung Urinal Divider	No.	4		
	Common Kitchen sink and Tap				
10	Single Drain Singel Bowl Stainless Steel Kitchen Sink, PVC Bottle Trap and waste 1.5in x 40, Long Neck Wall type Bib Tap	No.	1		
	Total For Students Center				
	TOTAL TO MAIN SUMMARY PAGE				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
C	**INTERNAL PLUMBING** **STUDENTS CENTER**				
	Supply, deliver install, Test and Commission: **PP-R (Polypropylene Random Co-polymer)** pipes **PN 20** and fittings and fusion joints to **(KS ISO 15874 Part 1, 2, 3 & 5)** of approved manufacturer. Rates must allow for all Metal/plastic threaded adaptors where required for the connection of sanitary fixtures, valves, sockets, sliding and fixed joints etc. as required in the running lengths of pipework. The pipes shall run in floors and wall chase. The pipes will be pressure tested before the plastering of wall commences and as per the manufacturers recommended testing pressures.				
	Cold Water				
1	25mm diameter PPR Pipes	LM	50		
2	32mm diameter PPR Pipes	LM	200		
3	40mm diameter PPR Pipes	LM	400		
	Extra over PPR tubing for the following:				
4	25mm diameter PPR 90° elbow	No.	30		
5	32mm diameter PPR 90° elbow	No.	48		
6	40mm diameter PPR 90° elbow	No.	50		
	Tees				
7	25mm diameter PPR equal tee	No.	24		
8	32mm diameter PPR equal tee	No.	40		
9	40mm diameter PPR equal tee	No.	80		
	Reducer Coupling				
10	25x20mm diameter PPR reducer coupling	No.	88		
11	32x25mm diameter PPR reducer coupling	No.	48		
12	40x32mm diameter PPR reducer coupling	No.	20		
	Reducer Tees				
13	25x20mm diameter PPR reducer tees	No.	16		
14	32x25mm diameter PPR reducer tees	No.	20		
15	40x32mm diameter PPR reducer tees	No.	20		
	Union				
16	25mm diameter PPR union	No.	12		
17	32mm diameter PPR union	No.	16		
18	40mm diameter PPR union	No.	20		
	Gate Valves				
19	32mm dia approved high pressure screw- down full way non-rising stem solid wedge disc gate valve to BS 5154 PN 16 for Series B Rating with wheel head and metal/plastic adaptors to PPR tubing. Valve to be as "Crane Model " or equal and approved	No.	8		
20	63mm ditto	No.	2		
	TOTAL TO NEXT PAGE				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	Balance brought forward				
	PPR Male threaded adaptors (Brass threads).				
21	20 x ¾"ø dia Male threaded adaptors (Brass threads).	No.	20		
22	25 x 1"ø dia ditto	No.	4		
23	32 x 11/4"ø dia ditto	No.	8		
24	63 x 11/2"ø dia ditto	No.	2		
	PPR Male/Female threaded elbows (Brass threads).				
25	20 x ¾"ø dia female threaded adaptors (Brass threads).	No.	20		
26	25 x 1"ø dia ditto	No.	4		
27	32 x 11/4"ø dia ditto	No.	8		
28	40 x 11/2"ø dia ditto	No.	2		
	Check Meter				
29	Allow for 63mm diameter "Kent" water check meters	No.	1		
	Total for Student Center				
	TOTAL TO MAIN SUMMARY PAGE				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
D	**FOUL DRAINAGE**				
I	**STUDENTS CENTRE**				
	Supply, deliver and install the following uPVC (Unplasticized Polyvinyl chloride) to (KS ISO 1452 Part 1, 2, 3, 4 & 5) Heavy gauge soil and waste system. Allow for all the various sizes of adaptor, connectors, sockets, holderbats, clips etc not measured but required for the satisfactory functioning of the system.				
	Note: Trade Names Caradon Terrain Ltd's pipe and fittings have been used as a guide to the type and quality of materials required. Other brands must be equal and approved in writing by the Engineer inconsistency shall not be accepted.				
	SOIL & WASTE DRAINAGE				
	Above Ground				
	MuPVC waste System conforming to BS 5255				
1	32Φ Waste pipe	LM	60		
2	40Φ Waste pipe	LM	100		
3	50Φ Waste pipe	LM	75		
4	100Φ Waste pipe	LM	100		
	Extra over MuPVC waste pipework for the following:				
5	32Φ 90 degree sweep Bend	No.	16		
6	40Φ 90 degree sweep Bend	No.	50		
7	50Φ 90 degree sweep Bend	No.	16		
8	100Φ 90 degree sweep Bend	No.	8		
9	32Φ Sweep Tee	No.			
10	40Φ Sweep Tee	No.	10		
11	50Φ Sweep Tee	No.	10		
12	100Φ Sweep Tee	No.			
13	100Φ Double Branch	No.			
14	32Φ Access plug	No.	4		
15	40Φ Access plug	No.	10		
16	50Φ Access plug	No.	4		
17	100Φ Access plug	No.			
18	32mm dia - socket	No.	12		
19	40mm dia - socket	No.	8		
20	50mm dia - socket	No.			
21	100mm dia - socket	No.			
	TOTAL TO NEXT PAGE				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	Balance brought forward				
22	50 x 32mm dia - socket reducer	No.	12		
23	50 x 40mm dia - socket reducer	No.	8		
24	100 x 50mm dia - Boss connectors	No.			
25	100 x 50 Floor traps complete with Plastic Grating	No.	8		
26	100Φ Vent Cowl	No.	4		
27	Allow for 2" PVC pipe sleeves through/ on side of the columns in bathrooms	LM	8		
	Total For Students Center Block				
	TOTAL TO MAIN SUMMARY PAGE				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
E	**EXTERNAL FOUL DRAINAGE** **STUDENT CENTER**				
	Supply, deliver and install the following uPVC (Unplasticized Polyvinyl chloride) to (KS ISO 1452 Part 1, 2, 3, 4 & 5) Heavy gauge soil and waste system. Allow for all the various sizes of adaptor, connectors, sockets, holderbats, clips etc not measured but required for the satisfactory functioning of the system.				
	Below Ground MuPVC waste System conforming to BS 5255				
1	100.4.40 Soil and Vent pipe	LM	75		
2	100.6.60 Soil and Vent pipe	LM	0		
3	101.4.90 Sweep bend	No.	30		
4	100Φ 45 degree sweep Bend	No.	6		
5	104.6.92 Single branch	No.	0		
6	136.4 Access Cap	No.	4		
	Gully Trap - Concrete Cover				
7	Allow for a masonry gully trap of size 300 x 300 x450 mm deep with cast Iron P-Trap, cast iron grating, drain pipe, concrete cover, etc.	No.	4		
	Inspection Chambers				
8	Allow excavation and concreting to Class 1:3:6, walling 150 mm thick solid concrete block walls with 1:3 mortar and plastering to 1:2, rectangular Cast Iron heavy duty cover and MS frame with double air seal for manhole not exceeding 1000 mm depth.	No.	4		
	TOTAL TO MAIN SUMMARY PAGE				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
F	**RAINWATER DRAINAGE**				
	STUDENTS CENTER				
	uPVC Rainwater system conforming to BS 4576				
1	100mm dia pipe	LM	60		
2	100mm Sweep bend	No.	10		
3	100mm dia Fulbora Outlets	No	5		
	TOTAL TO MAIN SUMMARY PAGE				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
G	**HOSEREELS, FIRE EXTINGUISHERS** **STUDENT CENTER**				
	GI Class 'B' tubing to KS06-259 with screwed and socketed joints to KS ISO 7-1:1994 including all range piping, fittings, hanagers, supports, brackets, and supports				
1	25mm diameter Black Pipe	Lm	10		
2	50mm diameter ditto	Lm	40		
	Extra over GMS tubing for the following:				
3	25mm diameter Black Pipe elbow	No.	4		
4	50mm dia ditto	No.	2		
	Tees				
5	25mm Black Pipe equal tee	No.	4		
6	50mm ditto	No.	2		
	Reducing Bushes				
7	25 x 20mm Black Pipe reducing bush	No.	2		
8	50 x 25 mm ditto	No.	2		
	Coupler				
9	25mm diameter Coupler	No.	1		
10	50mm ditto	No.	2		
	Gate Valves				
11	25mm dia high pressure screw- down full way non-rising stem solid wedge disc gate valve to BS 5154 PN 16 for Series B Rating with wheel head and joints to steel tubing. As "Crane Model 156 " or equal and approved	No.	1		
12	50mm ditto	No.	1		
	Pressure Gauge				
13	50mm diameter Pressure Gauge as Pakkens or equal and approved	No.	1		
	Hosereels				
14	Non recessed swinging type hosereel complete with 30 metres of 20mm internal diameter rubber fire hose with nylon spray/jet shut off nozzle , conforming to BS 5274 complete with 25mm diameter Pressure Gauge as Pakkens or equal and approved	No.	2		
15	Wire brush , clean, and paint complete installation with one coat of red oxide primer, undercoat, and gloss coat to Architects colour including banding and colour coding to British Standards	Sum	1		
	Fire Extinguishers				
16	5kg portable water/CO2 (gas cartridge) fire extinguisher conforming to BS 5423 complete with support brackets	No.	2		
17	9 kg portable dry chemical powder extinguisher conforming to BS 5423 complete with support brackets and approvedopriate charge of powder and CO2 cartridge.	No.	2		
	TOTAL TO NEXT PAGE				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	Balance brought forward				
18	Supply and fix signs indicating the words "FIRE POINT" in 80mm high letters	No.	2		
19	50mm non-return valve	No.	1		
20	50mm dia in-line strainer	No.	1		
21	Automatic electrical control panel for the two hosereel pumpsets as per general specification	No.	1		
22	Electrical wiring from local supply left within 10 metres within the pump room to control panel, from control panel to electric motors and from level controls to control panel.	Sum	1		
23	Allow for 50mm dia. Pressure Reducing Valve	No.	2		
	TOTAL TO MAIN SUMMARY PAGE				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	MAIN SUMMARY PAGE				
B	Sanitary Fittings Install Only				
C	Internal Plumbing				
D	Internal Foul Drainage				
E	External Foul Drainage				
F	Rainwater Drainage				
G	Hosereel System				
	TOTAL COST FOR MECHANICAL WORKS (INCL 16% VAT)				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
I	**EXTERNAL WATER RETICULATION & BOOSTED MAINS**				
	Float Switch & Cable				
1	RC tank low water level cut out float switch, Pressed Steel roof tank high level and low level cut out float switch inclusive of cables and laying from the pump control panel to the controls float switches. (Approx. 100 metres).	Item	1		
	Painting & Colour Coding				
2	Allow for painting of the whole of the plumbing installation with one coat of primer and two finishing coats in accordance with BS1710 specifications and labelling to the satisfaction of the Engineer.	Sum	1		
	Connection to Local Authority Water Mains				
3	Allow for application on behalf of Client and be responsible for water connection to the main supply pipe including liason with the local authority	Sum	1		
	Bulky Water Meter				
4	Allow for 50 mm diameter "Kent" water meter	No.	6		
	Valve/Meter Chamber				
5	Allow for a masonry valve chamber for 50 mm diameter valve and above of size 600 x 600 x 450 mm maximum depth with reinforced concrete cover with mild steel frame conforming to local authority requirements.	No.	6		
	Hose Taps				
6	Heavy duty, chrome plated 1/2" hose bibcock with star handles complete with GI stand pipe and support, and hose union	No.	12		
	Excavation				
	Excavate trench for buried drain pipes not exceeding 1000 mm and average 600 mm deep, part return, fill in, ram and remainder cart away.				
7	Allow for bracketing of pipes in vertical and horizontal runs **after every 1.5m**	Sum	1		
8	Concrete surround for pipe across driveway	LM	30		
	Pump Room				
9	50mm dia galvanised mild steel puddle flange manufactured from K-SS35 Class C pipe with flanges made of 15mm thick mild steel plate, all hot dipped galvanised after manufacture and treated with primer and finishing coats of colas bitumastic-Council inlet, Borehole inlet, float switch cables, domestic outlets	No.	6		
10	75mm dia galvanised mild steel puddle flange manufactured from K-SS35 Class C pipe with flanges made of 15mm thick mild steel plate, all hot dipped galvanised after manufacture and treated with primer and finishing coats of colas bitumastic-Overflow	No.	12		
11	150mm dia galvanised mild steel puddle flange manufactured from K-SS35 Class C pipe with flanges made of 15mm thick mild steel plate, all hot dipped galvanised after manufacture and treated with primer and finishing coats of colas bitumastic-Provision for fire discharge	No.	2		
12	RC Underground Water Tank **450,000 Litre**s Capacity	No.	1	MC	MC
13	50mm dia High Pressure Ball float Valve	No.	2		
14	GI Tank breather C/W insect Screen and bends 150mm dia	No.	1		
	TOTAL TO NEXT PAGE				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	Balance brought forward				
15	32mm diameter PPR Pipes	Lm	30		
16	32mm diameter PPR Elbows	No.	12		
17	32 x1 3/4"ø dia threaded adaptors (Brass threads).	No.	4		
18	800x600mm mild steel sheet hinged cover complete with mild steel frame, and padlock.Cover and frame to be painted with corrosion resistant zinc primer and paint.	No.	1		
19	Allow for Stainless Steel Cat Ladder	Item	1		
	Water Supply Pipes From Underground Tank To Each Block Supply, deliver and install- Cold Water, Corrosion Resistant HDPE water supply pipes Tenderers must allow in their pipework prices for all the couplings, connectors, adaptors, joints etc.required in the running length of pipework and also where necessary, for pipe fixing clips, holderbats plugged and screwed, brackets and pipe sleeves through structural members.				
20	75mm diameter HDPE Pipes supply	LM	350		
21	50mm diameter HDPE Pipes supply	LM	100		
	Extra over HDPE pipe				
22	75 mm dia. Bend	No.	12		
23	50 mm dia. Bend	No.	8		
	Gate Valve				
24	50mm dia approved high pressure screw- down full way non-rising stem solid wedge disc gate valve to BS 5154 PN 16 for Series B Rating with wheel head and joints to steel tubing. As "Crane Model 156 "	Nos	3		
25	75mm ditto	Nos	4		
	Non Retun Valve				
26	50mm dia approved high pressureNon-Return Valve As Crane Model	Nos	1		
27	75mm dia approved high pressureNon-Return Valve As Crane Model	Nos	1		
	HDPE Female threaded adaptors (Brass threads).				
28	50x 2"ø dia Female threaded adaptors (Brass threads).	No.	6		
29	75x 3"ø dia Female threaded adaptors (Brass threads).	No.	8		
	Excavation				
30	Excavate trench for buried drain pipes not exceeding 1000 mm and average 600 mmdeep, part return, fill in with quarry dust along driveway, ram and remainder cart away.	LM	300		
	Garden Stand Pipe				
31	Stand pipe 15mm 2Metres long GMS stand pipe each complete witlh 15mm lockabler bib tap	8	No.		
	Underground PPR Piping				
32	PPR 25Ø complete with relvant fittings and accessories	150	m		
33	Ditto 32Ø	150	m		
	TOTAL TO MAIN SUMMARY PAGE				

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
1.0	**Internal Plumbing Installations**				
	Supply, deliver install, Test and Commission:				
	PP-R (Polypropylene Random Co-polymer) pipes **PN 20** and fittings and fusion joints to **(KS ISO 15874 Part 1, 2, 3 & 5)** of approved manufacturer. Rates must allow for all Metal/plastic threaded adaptors where required for the connection of sanitary fixtures, valves, sockets, sliding and fixed joints etc. as required in the running lengths of pipework. The pipes shall run in floors and wall chase. The pipes will be pressure tested before the plastering of wall commences and as per the manufacturers recommended testing pressures.				
(i)	3 BR AHP				
	Pipe Works				
A	25mm Ø PPR Pipe	10	LM		
B	Ditto 20mm Ø	2	LM		
	Extra Over Pipe Work				
	Elbows/ Bends				
C	25mm Ø Elbows/ Bends	3	No.		
D	Ditto 20mm Ø	2	No.		
7					
	Equal/Unequal Tees				
E	25 x 20 x 25mm	1	No.		
	Reducers				
F	25 x 20mm reducer	2	No.		
	Male/Female brass threaded adaptor				
9.00	25 x 20mm male/female threaded adaptor	2	No.		
H	25 x 15mm ditto	1	LM		
I	25 x 15mm male threaded bend	1	LM		
	Total Carried to Next Page				

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
	Total from Previous Page				
	Isolating valves				
J	25mm Ø Gate Valve as "Pegler" or Equivalent	1	No.		
	Shut off Angle Valve				
K	Brass plated 1/2" angle valve	3	No.		
	Check Meter				
L	25mm diameter water check meter	1	No.		
	Testing and Commissioning				
M	Allow for pressure testing of the Plumbing installation to the satisfaction of the Engineer including provision of necessary pipe plugs.	1	Item		
	Sub Total for 1				
	TOTAL	1		x 1	

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
2.0	**SANITARY FITTINGS AND ACCESSORIES**				
	Water Closet (WC) Pan				
A	Close Coupled dual flush Floor Standing Close Coupled WC Bowl complete with seat cover and cistern, WC connector relevant fittings & accessories	1	No.		
	Wash Basin				
B	WHB basin Full pedestal Wash Basin 450x485x230m White Complte with bottle traps, flexible connection hoses and other accessories with cws only tap	1	No.		
	WHB Mirror				
C	6mm thick polished plate glass silver backed mirror with bevelled edges, screwed to wall with 4No. Chrome plated dome screws omplete with 5mm thick foam layer back rest and of sizes: 600mm by 450mm	1	Set		
	Shower Fittings				
D	Shower fitting c/w 15mm diameter chrome plated stop cork, Instant shower fitting and 1/2" Cobra 211- 15 Star Pillar tap as Pegler or equal and equivalent	1	No.		
	Sub Total for 1				
	TOTAL	1		x 1	
	Total Cost of Sanitary Fittings & Accessories				

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
	Foul Drainage				
	Supply, deliver and install the following uPVC (Unplasticized Polyvinyl chloride) to (KS ISO 1452 Part 1, 2, 3, 4 & 5) Heavy gauge soil and waste system. Allow for all the various sizes of adaptor, connectors, sockets, holderbats, clips etc not measured but required for the satisfactory functioning of the system.				
	Piping				
A	32mm diameter heavy duty grey uPVC pipe	2	LM		
B	40mm ditto	3	LM		
C	50mm ditto	6	LM		
D	100mm ditto	4	LM		
E	100mm diameter heavy duty pipe	8	LM		
	Extra over uPVC Pipeworks				
F	32mm sweep bend	1	No.		
G	40mm sweep bend	1	No.		
H	50mm sweep bend	2	No.		
I	100mm sweep bend	1	No.		
J	40mm 45º bend	1	No.		
K	50mm Ditto	1	No.		
L	50mm sweep tee	2	No.		
M	40 x 32mm reducer	1	No.		
N	40mm access plug	1	No.		
	Total Carried to Next Page				

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
	Total From Previous Page				
AA	100 x 50mm floor trap set complete with plastic flush grating	2	No.		
	Gulley Trap				
BB	Gully trap comprising of 100mm diameter golden brown uPVC gully piece, 100mm diameter uPVC trap spigot outlet with screws and washers, and 300 x 300mm masonry gully trap chamber with mild steel plate and a heavy duty iron cover.	1	No.		
	Manholes				
CC	Construct manhole/ inspection chamber size 450 x 600 x 750mm deep internally in 200mm stone walls, 150mm concrete bed, water proof plaster, forming drain channels, medium duty cover frame in cast iron with recessed cover with concrete infill and all necessary formwork, excavation and soil disposal.	1	No.		
	Excavations				
DD	Excavate trench for pipe not exceeding 100mm diameter and not exceeding 1.5m deep (average 600mm deep) and make good as before.	8	LM		
EE	Allow for hydrostatic pressure testing of drainage installation including provision of pipe plugs and other required fittings.	1	Item		
	Total Cost For Ground Floor Foul Drainage Installation				

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
	Rain Water Drainage				
	Supply, deliver and install UPVC (Unplasticized Polyvinyl chloride) to (KS ISO 1452 Part 1, 2, 3, 4 & 5) rainwater pipework. Allow for all flanges, couplings, nipples, connector joints, fixing clips holder bats etc as required in running length of pipework but not measured.				
	Piping				
A	100mm ditto	6	LM		
	Extra over piping for fittings:-				
B	100mm ditto	2	No.		
C	100mm sweep bend	2	No.		
D	100mm single branch	2	No.		
E	100mm double branch	2	No.		
F	100mm flat roof rain water outlets	1	No.		
	Total Cost For Rain Water Drainage Installation				

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
	ROOF WATER STORAGE TANK				
	Top Tank Deluxe heavy duty rotationally moulded polyethylene cylindrical vertical close end tank of nominal capacity of 1000 Litres and complete with lid and ball valve, float switch. Tanks to be complete with inlet, outlet and overflow connections and tank connectors for the same as described below: - - 1 No. 32mm diameter inlet pipe connection - 1 No. 50mm diameter outlet pipe connection - 1 No. 40 mm diameter overflow pipe connection				
A	Tank Capacity : 1000 litres	1	No		
	Total Cost For Roof Tanks				

ITEM	DESCRIPTION	AMOUNT (KES)
	SUMMARY PAGE	
1.0	**Total Cost for Internal Plumbing**	
3.0	**Total Cost for Sanitary Fittings**	
6.0	**Total Cost For Ground Floor Foul Drainage Installation**	
8.0	**Total Cost For Rain Water Drainage Installation**	
9.0	**Total Cost For Roof Tanks**	
	Total carried to Mechanical Works Main Summary Page	

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
1.0	**Internal Plumbing Installations**				
	Supply, deliver install, Test and Commission: **PP-R (Polypropylene Random Co-polymer)** pipes **PN 20** and fittings and fusion joints to **(KS ISO 15874 Part 1, 2, 3 & 5)** of approved manufacturer. Rates must allow for all Metal/plastic threaded adaptors where required for the connection of sanitary fixtures, valves, sockets, sliding and fixed joints etc. as required in the running lengths of pipework. The pipes shall run in floors and wall chase. The pipes will be pressure tested before the plastering of wall commences and as per the manufacturers recommended testing pressures.				
	Pipe Works				
A	25mm Ø PPR Pipe	6	LM		
B	Ditto 20mm Ø	2	LM		
	Extra Over Pipe Work				
	Elbows/ Bends				
C	25mm Ø Elbows/ Bends	3	No.		
D	Ditto 20mm Ø	2	No.		
7	**Equal/Unequal Tees**				
E	25 x 20 x 25mm	1	No.		
	Reducers				
F	25 x 20mm reducer	2	No.		
	Male/Female brass threaded adaptor				
G	25 x 20mm male/female threaded adaptor	2	No.		
9.00	25 x 15mm ditto	1	LM		
I	25 x 15mm male threaded bend	1	LM		
	Total Carried to Next Page				

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
	Total from Previous Page				
	Isolating valves				
J	25mm Ø Gate Valve as "Pegler" or Equivalent	1	No.		
	Testing and Commissioning				
L	Allow for pressure testing of the Plumbing installation to the satisfaction of the Engineer including provision of necessary pipe plugs.	1	Item		
	Sub Total				
	TOTAL	1		x 1	
	Total Cost of Plumbing Installation Guard House				

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
	Foul Drainage				
	Supply, deliver and install the following uPVC (Unplasticized Polyvinyl chloride) to (KS ISO 1452 Part 1, 2, 3, 4 & 5) Heavy gauge soil and waste system. Allow for all the various sizes of adaptor, connectors, sockets, holderbats, clips etc not measured but required for the satisfactory functioning of the system.				
	Piping				
A	50mm ditto	6	LM		
B	100mm ditto	4	LM		
C	100mm diameter heavy duty pipe	4	LM		
	Extra over uPVC Pipeworks				
D	50mm sweep bend	2	No.		
E	100mm sweep bend	1	No.		
	Total Carried to Next Page				

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
	Total From Previous Page				
	Gulley Trap				
EE	Gully trap comprising of 100mm diameter golden brown uPVC gully piece, 100mm diameter uPVC trap spigot outlet with screws and washers, and 300 x 300mm masonry gully trap chamber with mild steel plate and a heavy duty iron cover.	1	No.		
	Manholes				
GG	Construct manhole/ inspection chamber size 450 x 600 x 750mm deep internally in 200mm stone walls, 150mm concrete bed, water proof plaster, forming drain channels, medium duty cover frame in cast iron with recessed cover with concrete infill and all necessary formwork, excavation and soil disposal.	1	No.		
	Excavations				
HH	Excavate trench for pipe not exceeding 100mm diameter and not exceeding 1.5m deep (average 600mm deep) and make good as before.	4	LM		
	Total Cost For Ground Floor Foul Drainage Installation				

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
	Rain Water Drainage				
	Supply, deliver and install UPVC (Unplasticized Polyvinyl chloride) to (KS ISO 1452 Part 1, 2, 3, 4 & 5) rainwater pipework. Allow for all flanges, couplings, nipples, connector joints, fixing clips holder bats etc as required in running length of pipework but not measured.				
	Piping				
A	100mm ditto	6	LM		
	Extra over piping for fittings:-				
B	100mm ditto	2	No.		
C	100mm sweep bend	2	No.		
D	100mm single branch	2	No.		
E	100mm double branch	2	No.		
F	100mm flat roof rain water outlets	1	No.		
	Total Cost For Rain Water Drainage Installation				

ITEM	DESCRIPTION	QTY.	UNIT	RATE (KES)	AMOUNT (KES)
	ROOF WATER STORAGE TANK Heavy duty rotationally moulded polyethylene cylindrical vertical close end tank of nominal capacity of 1000 Litres and complete with lid and ball valve, float switch. Tanks to be complete with inlet, outlet and overflow connections and tank connectors for the same as described below: - - 1 No. 32mm diameter inlet pipe connection - 1 No. 50mm diameter outlet pipe connection - 1 No. 40 mm diameter overflow pipe connection				
A	Tank Capacity : 1000 litres	1	No		
	Total Cost For Roof Tanks				

ITEM	DESCRIPTION	AMOUNT (KES)
	SUMMARY PAGE	
1.0	**Total Cost for Internal Plumbing**	
2.0	**Total Cost For Ground Floor Foul Drainage Installation**	
3.0	**Total Cost For Rain Water Drainage Installation**	
4.0	**Total Cost For Roof Tanks**	
	Total carried to Mechanical Works Main Summary Page	

580 PAX GRAND SUMMARY PAGE

ITEM	DESCRIPTION	Unit	Qty	RATE (KSHS)	AMOUNT (KSHS)
1	SUMMARY FOR MECHANICAL SERVICES FOR STUDENT HOUSING G+7 BLOCK	No	2		
2	SUMMARY FOR EXTERNAL STUDENT CENTRE	No	1		
3	SUMMARY FOR EXTERNAL WATER RETICULATION	No	1		
4	SUMMARY FOR GUARD HOUSE	No	1		
5	SUMMARY FOR GARBAGE RECEPTACLE	No	1		
	TOTALS FOR MECHANICAL INSTALLATION SERVICES				

5.00	**PC SUM**				
ITEM	**DESCRIPTION**	**Unit**	**Qty**	**RATE (KSHS)**	**AMOUNT (KSHS)**
5.10	Sanitary Supply Only	Item	1		
5.20	Booster Pumps Supply & Installation (25m³/hr @ 5Bar)	Set	1		
5.30	32,000 Liters GRP Tanks Roof Level	No	4		
5.40	Hose Reel Pumps (100 l/min@ 3Bar)	Set	1		
5.50	External Reticulation Borehole Water	Item	1		
5.60	External Reticulation Council Water	Item	1		
5.70	Borehole Drilling & Equipping Estimate	No.	1		
5.80	800 P.E Waste Water Treatment Plant (Equipping Only)	No.	1		
5.90	Sump Pumps 10m3/hr @ 1bar	No.	3		
	Sub Total				

2.00	**OMMISION SUM**				
ITEM	**DESCRIPTION**	**Unit**	**Qty**	**RATE (KSHS)**	**AMOUNT (KSHS)**
2.10	Fire Sprinkler System	No.	1		
	Sub Total				

Amount in Words: Kenya Shillings…….....……

…….....……

…….....……

Official Stamp & Address:…….....……

…….....……

…….....……

Tenderer's Signature:……...Date:…….....……..……..…… .

Witness' Name:……Witness' Signature:…….……

Address:……..……

Date:……

ELECTRICAL WORKS

	SECTION 1: ELECTRICAL INSTALLATION WORKS				
1.00	**BILL NO.1. GROUND FLOOR** **LIGHTING POINTS, FITTINGS & ACCESSORIES** **Supply, Install, Connect, Test and Set to work the following:-**				
1.01	Lighting points wired in 3x1.5mm2 PVC insulated single core (SC) copper cables drawn in 20mm diameter HG PVC conduit concealed in walls and or floor slabs with all accessories but excluding switch and fitting for one way switching.	No.	36		
1.02	Ditto but for two way switching.	No.	35		
1.03	Ditto but for Emergency Switching.	No.	3		
	Supply, Install, Connect, Test and Set to work the following as marked on drawings and described in the schedule of Fittings:- ***10A white moulded wide rocker switch plates:-***				
1.04	10A 1 gang 1 way switch	No.	11		
1.05	10A 1 gang 2 way switch	No.	12		
1.06	10A 2 gang 2 way switch	No.	2		
1.07	10A Intermediate switch	No.	0		
	Supply, Install, Connect, Test and Set to work the following as marked on drawings and described in the schedule of Fittings:- *Light fittings, complete with lamps of specified wattage and appropriate colour rendering:-*				
1.08	Type FB - IP44, 19W, 1200mm LED tube light fitting with diffuser	No.	10		
1.09	Type FBe - IP44, 19W, 1200mm LED tube light fitting with diffuser c/w emergency kit	No.	4		
1.10	Type C - E27 Ceiling rose c/w 10W LED Bulb	No.	0		
1.11	Type D - Round Light with LED lamp	No.	38		
1.12	Type De - Round Light with LED lamp c/w emergency kit	No.	6		
1.13	Type Exit	No.	4		
1.14	Type P 1200 X 300MM 220/240V x 30 watt Warm White, 6500K Ceiling Mount. (Two LED Tubes)	No.	12		
	Total Carried Forward to the Next Page				

Item	DESCRIPTION	UNIT	QTY	Rate (KES)	Amount (KES)
	Balance Brought Forward from the Previous Page				
	POWER POINTS & ACCESSORIES **Supply, Install, connect and set to work the following:-**				
1.15	Power outlet points wired as for a ring main circuit in 3 x 2.5mm2 PVC single core (SC) copper cables drawn in 25mm diameter HG PVC conduits concealed in walls and floor slabs complete with all accessories excluding the socket outlet plate.	No.	28		
1.16	Power outlet points wired as for a radial circuit in 3x4.0mm2 PVC single core (SC) copper cables drawn in 25mm diameter HG PVC conduits concealed in walls and floor slabs for instant shower but excluding the DP switch.	No.	2		
	POWER POINTS & ACCESSORIES **Supply, Install, connect and set to work the following:-**				
1.17	Power outlet points wired as for a radial circuit in 3x4.0mm2 PVC single core (SC) copper cables drawn in 25mm diameter HG PVC conduits concealed in walls and floor slabs for lift sump pump but excluding the DP switch.	No.	2		
	Supply, Install, Connect, Test and Set to work the following as marked on drawings and described in the schedule of Fittings:-				
1.18	13A flush mounted twin socket-outlet	No.	28		
1.19	20A flush mounted switched DP switch	No.	2		
1.20	32A flush mounted switched DP switch	No.	3		
	ELV CABLE WAYS				
	ICT Points				
1.21	Supply, install and connect data outlet point consisting of average 20 meters of 25 mm diameter concealed heavy gauge PVC conduit inclusive of conduit, couplers, draw boxes, switch boxes, draw wire and other necessary accessories but excluding face plates.	No.	12		
	CCTV Points				
1.22	Supply, install and connect CCTV outlet point consisting of average 20 meters of 25 mm diameter concealed heavy gauge PVC conduit inclusive of conduit, couplers, draw boxes, switch boxes, draw wire and other necessary accessories.	No.	10		
	Fire Alarm Points				
1.23	Outlets for fire Alarm points drawn in 25mm diameter heavy gauge PVC conduits concealed in wall and floor slabs including all conduit accessories and draw wire but excluding cabling and detectors	No.	22		
	Total Carried Forward to the Next Page				

Item	DESCRIPTION	UNIT	QTY	Rate (KES)	Amount (KES)
	Balance Brought Forward from the Previous Page				
	<u>POWER DISTRIBUTION</u> **Supply, Install, connect and set to work the following:-**				
1.24	Supply, install and connect 16 way TP/N distribution board for power supply in riser duct complete with 125 Amp integral isolator and MCBs as specified.	No.	2		
1.25	10A SP MCB	No.	20		
1.26	20A SP MCB	No.	22		
1.27	32A SP MCB	No.	4		
1.28	Blanking Plates	No.	2		
1.29	Allow for Labeling of distribution boards as per technical specifications	Item.	1		
1.30	Earthing of the Distribution Board above	Item.	1		
	Total Carried Forward to Collection Page				

Item	DESCRIPTION	UNIT	QTY	Rate (KES)	Amount (KES)
2.00	**BILL NO.2. TYPICAL QUAD UNIT**				
	LIGHTING POINTS, FITTINGS & ACCESSORIES				
	Supply, Install, Connect, Test and Set to work the following:-				
2.01	Lighting points wired in 3x1.5mm2 PVC insulated single core (SC) copper cables drawn in 20mm diameter HG PVC conduit concealed in walls and or floor slabs with all accessories but excluding switch and fitting for one way switching.	No.	3		
	Supply, Install, Connect, Test and Set to work the following as marked on drawings and described in the schedule of Fittings:-				
2.02	10A 1 gang 1 way switch	No.	1		
	Supply, Install, Connect, Test and Set to work the following as marked on drawings and described in the schedule of Fittings:-				
2.03	Type C - E27 Ceiling rose c/w 10W LED Bulb	No.	1		
2.04	Type RL -7W 1 FT Reading Light	No.	2		
	POWER POINTS & WIRING ACCESSORIES				
	Supply, Install, Connect, Test and Set to work the following:-				
2.05	Power outlet points wired as for a ring main circuit in 3 x 2.5mm2 PVC single core (SC) copper cables drawn in 25mm diameter HG PVC conduits concealed in walls and floor slabs complete with all accessories excluding the socket outlet plate.	No.	4		
	Supply, Install, Connect, Test and Set to work the following as marked on drawings and described in the schedule of Fittings:-				
2.06	13A flush mounted Single socket-outlet	No.	0		
2.07	13A flush mounted twin socket-outlet	No.	4		
	Total Amount for Typical Quad Unit Incl. VAT				

Item	DESCRIPTION	UNIT	QTY	Rate (KES)	Amount (KES)
3.00	**BILL NO.3. COMMON AREAS-TYPICAL 1ST FLOOR**				
	LIGHTING POINTS, FITTINGS & ACCESSORIES				
	Supply, Install, Connect, Test and Set to work the following:-				
3.01	Lighting points wired in 3x1.5mm2 PVC insulated single core (SC) copper cables drawn in 20mm diameter HG PVC conduit concealed in walls and or floor slabs with all accessories but excluding switch and fitting for one way switching.	No.	12		
3.02	Ditto but for two way switching.	No.	22		
3.03	Ditto but for Emergency Switching.	No.	15		
	Supply, Install, Connect, Test and Set to work the following as marked on drawings and described in the schedule of Fittings:-				
	10A white moulded wide rocker switch plates:-				
3.04	10A 1 gang 1 way switch	No.	10		
3.05	10A 2 gang 2 way switch	No.	3		
3.06	10A Intermediate switch	No.	2		
	Supply, Install, Connect, Test and Set to work the following as marked on drawings and described in the schedule of Fittings:-				
	Light fittings, complete with lamps of specified wattage and appropriate colour rendering:-				
3.07	Type FB - IP44, 19W, 1200mm LED tube light fitting with diffuser	No.	8		
3.08	Type FBe - IP44, 19W, 1200mm LED tube light fitting with diffuser c/w emergency kit	No.	4		
3.09	Type C - E27 Ceiling rose c/w 10W LED Bulb	No.	4		
3.10	Type D - Round Light with LED lamp	No.	26		
3.11	Type De - Round Light with LED lamp c/w emergency kit	No.	6		
3.12	Type Exit	No.	3		
3.13	Type P 1200 X 300MM 220/240V x 30 watt Warm White, 6500K Ceiling Mount. (Two LED Tubes)	No.	0		
	POWER POINTS & ACCESSORIES				
	Supply, Install, connect and set to work the following:-				
3.14	Power outlet points wired as for a ring main circuit in 3 x 2.5mm2 PVC single core (SC) copper cables drawn in 25mm diameter HG PVC conduits concealed in walls and floor slabs complete with all accessories excluding the socket outlet plate.	No.	8		
3.15	Power outlet points wired as for a radial circuit in 3x4.0mm2 PVC single core (SC) copper cables drawn in 25mm diameter HG PVC conduits concealed in walls and floor slabs for instant shower but excluding the DP switch.	No.	5		
	Total Carried Forward to the Next Page				

Item	DESCRIPTION	UNIT	QTY	Rate (KES)	Amount (KES)
	Balance Brought Forward from the Previous Page				
	POWER POINTS & ACCESSORIES **Supply, Install, connect and set to work the following:-**				
3.16	Power outlet points wired as for a radial circuit in 3x4.0mm2 PVC single core (SC) copper cables drawn in 25mm diameter HG PVC conduits concealed in walls and floor slabs for lift sump pump but excluding the DP switch.	No.	0		
	Supply, Install, Connect, Test and Set to work the following as marked on drawings and described in the schedule of Fittings:-				
3.17	13A flush mounted twin socket-outlet	No.	8		
3.18	20A flush mounted switched DP switch	No.	0		
3.19	32A flush mounted switched DP switch	No.	5		
	ELV CABLE WAYS				
	ICT Points				
3.20	Supply, install and connect data outlet point consisting of average 20 meters of 25 mm diameter concealed heavy gauge PVC conduit inclusive of conduit, couplers, draw boxes, switch boxes, draw wire and other necessary accessories but excluding face plates.	No.	3		
	CCTV Points				
3.21	Supply, install and connect CCTV outlet point consisting of average 20 meters of 25 mm diameter concealed heavy gauge PVC conduit inclusive of conduit, couplers, draw boxes, switch boxes, draw wire and other necessary accessories.	No.	5		
	Fire Alarm Points				
3.22	Outlets for fire Alarm points drawn in 25mm diameter heavy gauge PVC conduits concealed in wall and floor slabs including all conduit accessories and draw wire but excluding cabling and detectors	No.	12		
	POWER DISTRIBUTION **Supply, Install, connect and set to work the following:-**				
3.23	Supply, install and connect 16 way TP/N distribution board for power supply in riser duct complete with 125 Amp integral isolator and MCBs as specified.	No.	1		
3.24	10A SP MCB	No.	20		
3.25	20A SP MCB	No.	22		
3.26	32A SP MCB	No.	4		
3.27	Blanking Plates	No.	2		
3.28	Allow for Labeling of distribution boards as per technical specifications	Item.	1		
3.29	Earthing of the Distribution Board above	Item.	1		
	Sub - Total 1st Floor Common areas Carried Forward to Collection Page				

Item	DESCRIPTION	UNIT	QTY	Rate (KES)	Amount (KES)
4.00	**BILL NO.4. COMMON AREAS-TYPICAL 2ND To 7TH FLOORS**				
	LIGHTING POINTS, FITTINGS & ACCESSORIES				
	Supply, Install, Connect, Test and Set to work the following:-				
4.01	Lighting points wired in 3x1.5mm2 PVC insulated single core (SC) copper cables drawn in 20mm diameter HG PVC conduit concealed in walls and or floor slabs with all accessories but excluding switch and fitting for one way switching.	No.	12		
4.02	Ditto but for two way switching.	No.	20		
4.03	Ditto but for Emergency Switching.	No.	15		
	Supply, Install, Connect, Test and Set to work the following as marked on drawings and described in the schedule of Fittings:-				
	10A white moulded wide rocker switch plates:-				
4.04	10A 1 gang 1 way switch	No.	10		
4.05	10A 2 gang 2 way switch	No.	3		
4.06	10A Intermediate switch	No.	2		
	Supply, Install, Connect, Test and Set to work the following as marked on drawings and described in the schedule of Fittings:-				
	Light fittings, complete with lamps of specified wattage and appropriate colour rendering:-				
4.07	Type FB - IP44, 19W, 1200mm LED tube light fitting with diffuser	No.	8		
4.08	Type FBe - IP44, 19W, 1200mm LED tube light fitting with diffuser c/w emergency kit	No.	4		
4.09	Type C - E27 Ceiling rose c/w 10W LED Bulb	No.	4		
4.10	Type D - Round Light with LED lamp	No.	24		
4.11	Type De - Round Light with LED lamp c/w emergency kit	No.	6		
4.12	Type Exit	No.	3		
4.13	Type P 1200 X 300MM 220/240V x 30 watt Warm White, 6500K Ceiling Mount. (Two LED Tubes)	No.	0		
	POWER POINTS & ACCESSORIES				
	Supply, Install, connect and set to work the following:-				
4.14	Power outlet points wired as for a ring main circuit in 3 x 2.5mm2 PVC single core (SC) copper cables drawn in 25mm diameter HG PVC conduits concealed in walls and floor slabs complete with all accessories excluding the socket outlet plate.	No.	8		
4.15	Power outlet points wired as for a radial circuit in 3x4.0mm2 PVC single core (SC) copper cables drawn in 25mm diameter HG PVC conduits concealed in walls and floor slabs for instant shower but excluding the DP switch.	No.	5		
	Total Carried Forward to the Next Page				

Item	DESCRIPTION	UNIT	QTY	Rate (KES)	Amount (KES)
	Balance Brought Forward from the Previous Page				
	POWER POINTS & ACCESSORIES **Supply, Install, connect and set to work the following:-**				
4.16	Power outlet points wired as for a radial circuit in 3x4.0mm2 PVC single core (SC) copper cables drawn in 25mm diameter HG PVC conduits concealed in walls and floor slabs for lift sump pump but excluding the DP switch.	No.	0		
	Supply, Install, Connect, Test and Set to work the following as marked on drawings and described in the schedule of Fittings:-				
4.17	13A flush mounted twin socket-outlet	No.	8		
4.18	20A flush mounted switched DP switch	No.	0		
4.19	32A flush mounted switched DP switch	No.	5		
	ELV CABLE WAYS				
4.20	**ICT Points** Supply, install and connect data outlet point consisting of average 20 meters of 25 mm diameter concealed heavy gauge PVC conduit inclusive of conduit, couplers, draw boxes, switch boxes, draw wire and other necessary accessories but excluding face plates.	No.	3		
4.21	**CCTV Points** Supply, install and connect CCTV outlet point consisting of average 20 meters of 25 mm diameter concealed heavy gauge PVC conduit inclusive of conduit, couplers, draw boxes, switch boxes, draw wire and other necessary accessories.	No.	5		
4.22	**Fire Alarm Points** Outlets for fire Alarm points drawn in 25mm diameter heavy gauge PVC conduits concealed in wall and floor slabs including all conduit accessories and draw wire but excluding cabling and detectors	No.	12		
	POWER DISTRIBUTION **Supply, Install, connect and set to work the following:-**				
4.23	Supply, install and connect 16 way TP/N distribution board for power supply in riser duct complete with 125 Amp integral isolator and MCBs as specified.	No.	1		
4.24	10A SP MCB	No.	20		
4.25	20A SP MCB	No.	22		
4.26	32A SP MCB	No.	4		
4.27	Blanking Plates	No.	2		
4.28	Allow for Labeling of distribution boards as per technical specifications	Item.	1		
4.29	Earthing of the Distribution Board above	Item.	1		
	Sub - Total Typical 2nd to 7th Floors Common areas Carried Forward to Collection Page				

5.00	**BILL NO.5. ROOFTOP**				
Item	**DESCRIPTION**	**UNIT**	**QTY**	**Rate (KES)**	**Amount (KES)**
	LIGHTING POINTS, FITTINGS & ACCESSORIES				
	Supply, Install, Connect, Test and Set to work the following:-				
5.01	Lighting points wired in 3x1.5mm2 PVC insulated single core (SC) copper cables drawn in 20mm diameter HG PVC conduit concealed in walls and or floor slabs with all accessories but excluding switch and fitting for two way switching.	No.	18		
	Supply, Install, Connect, Test and Set to work the following as marked on drawings and described in the schedule of Fittings:-				
	10A white moulded wide rocker switch plates:-				
5.02	10A 2 gang 2 way switch	No.	3		
5.03	10A Intermediate switch	No.	2		
	Supply, Install, Connect, Test and Set to work the following as marked on drawings and described in the schedule of Fittings:-				
	Light fittings, complete with lamps of specified wattage and appropriate colour rendering:-				
5.04	Type D - Round Light with LED lamp	No.	3		
5.05	Type De - Round Light with LED lamp c/w emergency kit	No.	3		
5.06	Type A4- IP65 External bulkhead fitting	No.	8		
5.07	Type A4E- IP65 External bulkhead fitting	No.	4		
5.08	Type Exit	No.	3		
	POWER POINTS & ACCESSORIES				
	Supply, Install, connect and set to work the following:-				
5.09	Power outlet points wired as for a ring main circuit in 3 x 2.5mm2 PVC single core (SC) copper cables drawn in 25mm diameter HG PVC conduits concealed in walls and floor slabs complete with all accessories excluding the socket outlet plate.	No.	6		
	Supply, Install, Connect, Test and Set to work the following as marked on drawings and described in the schedule of Fittings:-				
5.10	13A flush mounted twin weather proof socket-outlet	No.	6		
5.11	20A weather proof Three phase wall Surface Mounted Isolator for the hosereel as Katko	No.	2		
	Total Carried Forward to the Next Page				

Item	DESCRIPTION	UNIT	QTY	Rate (KES)	Amount (KES)
	Balance Brought Forward from the Previous Page				
	POWER POINTS & ACCESSORIES **Supply, Install, connect and set to work the following:-**				
	ELV CABLE WAYS				
	CCTV Points				
5.12	Supply, install and connect CCTV outlet point consisting of average 20 meters of 25 mm diameter concealed heavy gauge PVC conduit inclusive of conduit, couplers, draw boxes, switch boxes, draw wire and other necessary accessories.	No.	5		
	Fire Alarm Points				
5.13	Outlets for fire Alarm points drawn in 25mm diameter heavy gauge PVC conduits concealed in wall and floor slabs including all conduit accessories and draw wire but excluding cabling and detectors	No.	3		
	POWER DISTRIBUTION **Supply, Install, connect and set to work the following:-**				
5.14	Supply, install and connect 4 way TP/N distribution board for power supply in riser duct complete with 125 Amp integral isolator and MCBs as specified.	No.	2		
5.15	10A SP MCB	No.	4		
5.16	20A SP MCB	No.	4		
5.17	20A TP MCB	No.	2		
5.18	Blanking Plates	No.	2		
5.19	Allow for Labeling of distribution boards as per technical specifications	Item.	1		
5.20	Earthing of the Distribution Board above	Item.	1		
	Sub-Total for Rooftop carried to Electrical Installation Summary Page				

ITEM NO.	COLLECTION PAGE	AMOUNT KShs
1	Total Amount for Ground Floor Common Areas Brought Forward from Page 2 **(x 1)**	
2	Total Amount for Typical Quad Rooms Brought Forward from Page 3 (Quads **x 145**)	
3	Total Amount for 1st Floor Common Areas Brought Forward from Page 5 **(x 1)**	
4	Total Amount for Typical 2nd to 7th Floor Common Areas Brought Forward from Page 5 **(x 6)**	
5	Total Amount for Rooftop Brought Forward from Page 7	
	Sub-Total for Apartments carried to Electrical Installation Summary Page	

Item	DESCRIPTION	UNIT	QTY	Rate (KES)	Amount (KES)
5.00	**BILL NO.5: MAIN POWER DISTRIBUTION**				
	LV BOARDS **Supply, Deliver and Position the Following:**				
	SUB-BOARDS NON-MAINTAINED POWER				
5.21	8 way Sub-board in the ducts as IP-32, Form-2B as per the Schematic and in compliance with IEC 60439 and KSIEC 60439 Standards, complete with the following:- **Incomer** 1No. 400A TP Adj. MCCB Indicator Lamps (RYB) **Outgoers** - 9 nos. adj 3P 100A, 25kA, MCCBs Outgoers - 2 nos. 3P 63A Spares	No.	1		
5.22	Label Subboard as per schematic drawing.	Item	1		
5.23	Provide As-Built Schematic Drawing	Item	1		
	CABLES				
5.24	Submains circuit from the **Main board** to **Sub-Boards (SB-GF/01, SB-FF-01,SB-GF/00)** in electrical ducts comprising of 2x120mm2 XLPE/PVC/SWA 4c + 120mm2 sc ECC Copper cables laid in PVC Duct and Trays	Lm.	200		
5.22	Submains circuit from the **Generator** to **the Main Board** comprising of 16mm2 XLPE/PVC/SWA 4c + 10mm2 sc ECC Copper cables laid in PVC Duct and Trays	Lm.	100		
5.25	Submains circuit from the **Main board** to the **Typical Floors DB** comprising of 10mm2 XLPE/PVC/SWA 4c + 6.0mm2 sc ECC Copper cables laid in PVC Duct and Trays	Lm.	100		
5.26	Submains circuit from the **Main board** to the **Pump Room DB** comprising of 16mm2 XLPE/PVC/SWA 4c + 10.0mm2 sc ECC Copper cables laid in PVC Duct and Trays	Lm.	50		
5.27	Submains circuit from the Sub board on the **ground floor** to the **Lift DB** comprising of 16mm2 XLPE/PVC/SWA 4c + 10.0mm2 sc ECC Copper cables laid in PVC Duct and Trays	Lm.	50		
5.27	Submains circuit from **Main Board** to **Common Area DBs** at the Ground Floor Electrical Ducts comprising of 10mm2 XLPE/PVC/SWA 4c + 6.0mm2 sc ECC Copper cables laid in PVC Duct and Trays	Lm.	100		
5.28	Submains circuit from **Common Area Sub-Board** at the Ground Floor to, **Common Area** and **Roof Terrace DBs** comprising of 10mm2 XLPE/PVC/SWA 4c + 6.0mm2 sc ECC Copper cables laid in PVC Duct and Trays	Lm.	100		
5.29	Cable gland for above cables terninations	Lot.	1		
5.30	Cable Lugs for above cables terninations	Lot.	1		
	Total Carried Forward to the Next Page				

Item	DESCRIPTION	UNIT	QTY	Rate (KES)	Amount (KES)
	Balance Brought Forward from the Previous Page				
	CABLE MANAGEMENT				
5.31	400 x 50mm Powder coated fabricated Cable tray complete with angle bends, Tees, end caps and mounting brackets & accessories to detail and to approval. Including equipotential bonding.	Lm.	50		
5.32	300 x 50mm Powder coated fabricated Cable tray complete with angle bends, Tees, end caps and mounting brackets & accessories to detail and to approval. Including equipotential bonding.	Lm.	50		
5.33	150 x 50mm Powder coated fabricated Cable tray complete with angle bends, Tees, end caps and mounting brackets & accessories to detail and to approval. Including equipotential bonding.	Lm.	40		
	MECHANICAL LOADS				
5.34	Supply, install and connect 4 way TP/N distribution board for **Pump Room** power supply in riser duct complete with 125 Amp integral isolator and MCBs as specified.	No.	1		
5.35	Supply, install and connect 4 way TP/N distribution board for **Lifts** power supply in riser duct complete with 125 Amp integral isolator and MCBs as specified.	No.	2		
5.36	Supply and install 16A/ 20 Amp weather proof TP isolators for pumps and other equipment.	No.	4		
5.37	Supply and install 63 Amp weather proof TP isolators for Lift.	No.	1		
	Total Carried to Electrical Installation Summary Page				

7.00	**BILL NO.6: FIRE ALARM SYSTEM**				
ITEM	**DESCRIPTION**	**UNIT**	**QTY**	**RATE**	**AMOUNT**
7.01	Microprocessor based 1-Loop Addressable Fire Alarm Control Panel	No.	1		
7.02	Addressable Photoelectric Smoke Detector	No.	62		
7.03	Addressable Heat Detector as Menvier or Approved equivalent	No.	0		
7.04	Addressable Manual Fire Alarm 'Break Glass' call points	No.	24		
7.05	Addressable Electronic Fire Alarm sounder complete with Red Flashing beacon	No.	24		
7.06	Microprocessor based Addressable Fire Alarm Repeater Panel	No.	1		
7.07	2x2.5mm2 FP 200 Network cables for connecting the above panels.	Lm	180		
7.08	Demonstrate operation of the complete fire alarm system in presence of manufacturer's representative	Item	1		
7.09	Connect, test, program and commission the fire alarm system and provide log and schedule of active devices	Item	1		
7.10	Operation manuals and 3 sets of record drawings both hard and soft copies	Item	1		
	Total Carried to Electrical Installation Summary Page				

8.00	**BILL NO.7: IPCCTV INSTALLATION**				
ITEM	**DESCRIPTION**	**UNIT**	**QTY**	**RATE**	**AMOUNT**
	Supply, Install, Test, Commission and Set to work:-				
8.01	64 CH Network Video Recorder - Embedded 4K NVR DS-9632/64NI-I16 + 12TB Storage HDD • Third-party network cameras supported • Up to 12 Megapixels resolution recording • Support 2-ch HDMI, 2-ch VGA, HMDI1 at up to 4K(3840x2160) resolution • Up to 64 IP cameras can be connected with 320M incoming bandwidth • Up to 16 SATA interfaces • Support HDD hot swap with RAID0,1,5,6,10 storage scheme configurable •Support H.265/H.264/MPEG4 video formats	No.	2		
8.02	2MP WDR Fixed Dome Network Camera DS-DS-2CD1121-I • Support H.264+ • Up to 30m IR range • IP67 weather-proof protection (Gnd, 1st to 8th Floor) • Mobile monitoring via iVMS-4500	No.	80		
8.03	2MP WDR Fixed Bullet Network Cameras (Specs same as for the Dome Cameras) (Roof Top, Entrance , Perimeter wall & Basement)	No.	15		
8.04	Wireless Lift camera- 4MP dome network Camera	No.	1		
8.05	M2 Ubiquiti nano stations for point to point link for the wireless Lift cameras	No.	2		
8.06	Remote View Workstation (PC) -inclusive 32 inch Display) - Gate house	No.	1		
8.07	CCTV surveillance monitoring Screen (LED Display)- 50"	No.	3		
8.08	Network cable (Cat 6 E cable) -Full copper - 305meter rolls	Rolls	35		
8.09	20M HDMI cable	No.	4		
8.10	Consumables : RJ 45 plugs, cable ties , labels	Lot	1		
8.11	8T Surveillance Harddisk	No.	4		
8.12	Installation ,configuration, testing , documentation (Manuals) , commissioning & Client Training	Item	1		
	Total Carried forward to Summary Page				

9.00	**BILL NO.8: STRUCTURED CABLING INSTALLATION**				
ITEM	**DESCRIPTION**	**UNIT**	**QTY**	**RATE**	**AMOUNT**
	Supply, Install, Test, Commission and Set to work:-				
9.01	Ruijie Networks PoE/PoE+ 48-port Gigabit managed switch with 4 SFP ports as Ruijie Networks RG-NBS3200-48GT4XS-P	No.	3		
9.02	9U wall-mount Cabinet (for Ducts)	No.	3		
9.03	Wide 42 U Cabinet Free Standing - Server Room	No.	1		
9.04	CAT6A 4 pair UTP cable roll - 305m per roll/box	No.	15		
9.05	48 Port RJ45 Patch Panel	No.	5		
9.06	Cabinet Cable Managers	No.	8		
9.07	Wi-Fi Access Points as RG-RAP2200 Series Reyee Wi-Fi 5 AC1300 Indoor Cloud Managed Access Point (for Common Areas:- Kitchens & Lounges)	No.	26		
9.08	1-meter Patch Cords -UTP	No.	130		
9.09	3-meter Patch Cords	No.	11		
9.10	Siemon Faceplace And Modules	No.	11		
9.11	Multimode Fiber Optic Cable - in meters	meters	300		
9.12	SFP Gigabit Modules for Fiber termination	No.	8		
9.13	1m Fiber Patch Cords	No.	8		
9.14	48 port Fiber ODF (optical distribution frame)	No.	1		
9.15	Mikrotik CCR 8 port Gigabit router with 2 SFP & dual power supply as Microtik CCR1036-8G-2S+	No.	1		
9.16	Mikrotik CRS 10 SFP cage managed switch with 5No. 1G SFP ports and 4No. 10GSFP+ ports as Microtik CRS310-1G-5S-4S+IN	No.	1		
9.17	Accessories: Cable Ties, RJ 45, Flexiconduits - Lot	Lot	1		
9.18	Labour	No.	1		
	Total Carried forward to Summary Page				

10.00	**BILL NO.9: LIGHTNING PROTECTION**				
Item	**DESCRIPTION**	**UNIT**	**QTY**	**Rate (KES)**	**Amount (KES)**
	Supply, Install, Test, Commission and Set to work:-				
	Air Termination				
10.01	2000mm x15mmØ multiple point pure copper AirRods/ Termination with spikes as Furse Part No. RA240 or approved equivalent	No	1		
10.02	Copper Air Rod Base as Furse Part No. SD105-H or approved equivalent	No.	1		
10.03	Copper Junction Clamps for copper tape as Furse Part No. CN105-H or approved equivalent	No.	2		
10.04	25x3mm copper tape TC030 on tape clip Furse CP210 including saddles, appropriate bonding & jointing clamps to bond and clamp the tape to masonry wall.	Lm	150		
	Down Conductor				
10.05	32mm diameter HG concealed PVC conduit with factory made bends, all conduit fittings as shown on drawing.	Lm	80		
10.06	70mm2 bare copper conductor enclosed HG concealed PVC conduit between copper tape and test joint (down conductor).	Lm	80		
10.07	Screwdown copper test clamp as Furse CT305 or approved equivalent	No.	2		
	Earth Termination				
10.08	Supply and install earthing complete with Earthing Matt measuring 1000x1000mm build in 25mm x 3mm thick riveted with copper rivets. 2Nos. Earth electrodes, and 2Nos. Rod to tape clamps. The earth matt to be treated by marconite and salt to obtain reading <10.0 ohms.	No.	2		
10.09	70mm2 ECC in 1x25mm dia PVC conduit between the test clamp and the earth rods.	Lm	10		
10.10	Concrete earthing inspection pits	No	2		
10.11	Test the completed lightning protection system and log in results	Item	1		
	Bonding				
10.12	Bonding and clamping to all metal work including water pipes, gas pipes, hand-rails, smatv system, window frames, cladding, metal roof etc. and the main earth for the building.	Item	1		
	Total Carried to Electrical Installation Summary Page				

	ELECTRICAL INSTALLATION WORKS SUMMARY PAGE	AMOUNT
1.00	Bill No.1. Apartment Floors Electrical Installation Works	
2.00	Bill No.5: Main Power Distribution	
3.00	Bill No.6: Fire Alarm System	
4.00	Bill No.7. IPCCTV Intsllations	
5.00	Bill No.8: Structured Cabling Installations	
6.00	Bill No.9: Lightning Protection	
	TOTAL CARRIED FORWARD TO GRAND SUMMARY PAGE INCL. VAT	

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	BILL NO. 8				
	CLUB HOUSE				
	SUPPLY, DELIVER , INSTALL ,SET TO WORK AND COMMISSION THE FOLLOWING:-				
	LIGHTING POINTS				
8.11	Lighting point completely wired in 3 x 1.5mm^2 single core PVC insulated copper cables drawn in 20mm diameter heavy gauge PVC conduits including all accessories for one way switching, but excluding the switch and luminaire.	No.	34		
	ii) Ditto as in item No. 8.11 but for two way switching	No.	24		
8.12	10A white moulded switch plate as Crabtree, MK Logic, Clipsal E- Series or approved equivalent as follows:-				
	i) 10A one gang one way switch	No.	14		
	ii) 10A one gang two way switch	No.	4		
	iii) 10A two gang two way switch	No.	4		
8.13	**LIGHTING FITTINGS**				
	a) Circular shaped surface mounted led luminaire as Phillips Co	No.	24		
	b) Bulkhead fitting with moulded glass diffuser & Die Cast Alu	No.	10		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
	c) 600mm x 600mm, 33 watts LED panel light fitting as Phillips	No.	3		
	d) 1 x 36W, 1200mm Surface mounted mirror strip HPF water p	No.	4		
	e) Large decorative highbay pendant with metal die cast alumi	No.	12		
	f) 36W Suspended/Wall mounted LED linear luminaire comple	No.	3		
8.14	CCTV points in designtaed locations for survailance, comprising of 25mm diameter HG PVC conduits complete with draw wire and the blanking plate. Allow for draw boxes where all the conduits from each security point converge.	No.	4		
8.15	300x 300x 100mm deep 16 G galvanized adaptable box.	No.	2		
8.16	24A, 240V, 2P DB/CU mounted silent operation contactor for Switching External lights complete with all accessories and as CRABTREE CIK24 or an approved equivalent	No.	1		
8.17	Photocell control unit and wired to energize the contactors complete with a D.P override switch as THORN QPK or approved equivalent	No.	1		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
	POWER AND SOCKET OUTLET POINTS				
8.18	13A SP socket point completely wired in 3 x 2.5mm^2 single core PVC insulated copper cables drawn in 25mm diameter heavy gauge PVC conduits including all accessories but excluding the 13A SP switched socket outlet.	No.	8		
8.19	Socket Outlet plates i) 13A SP twin switched socket outlet as MK 2536 or equal & approved equivalent.	No.	8		
8.20	Instant shower water heater power points completely wired in 3 x 4mm^2 single core PVC insulated copper cables drawn in 25mm diameter heavy gauge PVC conduits including all accessories, but excluding the 40A DP connection unit	No.	2		
8.21	40A DP switched connection unit with neon indicator as MK or approved equivalent	No.	2		
8.22	Under sink water heater power points completely wired in 3 x 4mm^2 single core PVC insulated copper cables drawn in 25mm diameter heavy gauge PVC conduits including all accessories, but excluding the 40A DP connection unit	No.	1		
8.23	40A DP switched connection unit with neon indicator as MK or approved equivalent	No.	1		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
8.24	Hand drier power points completely wired in 3 x 2.5mm^2 single core PVC insulated copper cables drawn in 25mm diameter heavy gauge PVC conduits including all accessories, but excluding the 20A DP connection unit	No.	2		
8.25	20A DP switched connection unit with neon indicator as MK or approved equivalent	No.	2		
8.26	Kitchen hood power points completely wired in 3 x 2.5mm^2 single core PVC insulated copper cables drawn in 25mm diameter heavy gauge PVC conduits including all accessories, but excluding the 20A DP connection unit	No.	1		
8.27	20A DP switched connection unit with neon indicator as MK or approved equivalent	No.	1		
8.28	Deep fat fryer power points completely wired in 5 x 6mm^2 single core PVC insulated copper cables drawn in 32mm diameter heavy gauge PVC conduits including all accessories ,but excluding the the 63A TPN isolator	No.	2		
8.29	Electric 4 burner power points completely wired in 5 x 6mm^2 single core PVC insulated copper cables drawn in 32mm diameter heavy gauge PVC conduits including all accessories ,but excluding the the 63A TPN isolator	No.	2		
8.30	63A TPN isolator as MK or approved equivalent	No.	4		
	Total Carried Forward to the Next Pg.				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
	TELEPHONE, DATA AND TV POINTS POINTS				
8.31	Data point comprising of draw wire in 25mm diameter Heavy Gauge PVC conduits including all accessories and blanking plate but excluding the data socket outlet.	No.	2		
8.32	6 ways 100A TPN distribution boards 'T' complete with 100A TPN integral isolator ,but excluding the MCBs ,and as Schneider Electric Acti 9 or approved equivalent.	No.	1		
8.33	**MCBs for item above as Schneider Electric Acti 9**				
	i)10 A SP MCB	No.	3		
	ii)32 A SP MCB	No.	2		
	iii)32 A TP MCB	No.	4		
	iv) Blanking plates	No.	4		
8.34	Sub-mains circuits for DB 'T' above comprising of 4 core 16mm2 PVC/SWA/PVC cable drawn in 32mm diameter heavy gauge conduits for club house	LM	90		
TOTAL AMOUNT FOR BILL No. 8: CLUB HOUSE CARRIED FORWARD TO GRAND SUMMARY PAGE					

Item	DESCRIPTION	UNIT	QTY	Rate (KES)	Amount (KES)
1.00	**EXTERNAL WORKS**				
1.01	Allow for trenching of 750mm and width 450mm, laying of 2x 200mm Conduit, back filling of trenches, and laying of "DANGER " cable tiling (for cable running along non-concrete areas), reinstatement and making of good of ground as directed by the Engineer on site	Lm	100		
6.02	200mm Heavy Guage PVC pipes and fittings laid in trenches and complete with draw wires	Lm	200		
1.02	100mm Heavy Guage PVC pipes and fittings laid in trenches and complete with draw wires	No.	100		
1.03	Power Manholes of sizes 1000mmLx1000mmWx1000mm deep Cable pits, excavation, 100mm plain in-situ concrete class 21/20 base and sides, 100mm thick precast concrete cover class 21/20 reinforced with two layers of mesh reinforcement A142 weighing 2.2Kgs per square meter with galvanized lifting handles, holes through sides for 100mm & 200mm dia pipes for Power.	No.	34		
1.04	Data Manholes of sizes 600mmLx600mmWx600mm deep Cable pits, excavation, 100mm plain in-situ concrete class 21/20 base and sides, 100mm thick precast concrete cover class 21/20 reinforced with two layers of mesh reinforcement A142 weighing 2.2Kgs per square meter with galvanized lifting handles, holes through sides for 100mm & 200mm dia pipes for Data.	No.	10		
	EXTERNAL LIGHTING				
1.05	**Supply, Install, Test, Commission and Set to work:-** Lighting points wired in 3x1.5mm2 PVC insulated single core (SC) copper cables drawn in 20mm diameter HG PVC conduit concealed in walls and or floor slabs with all accessories but excluding switch and fitting for one way switching.	No.	14		
1.06	Supply and install 20A 4 poles AC3 duty contactor mounted on DIN rails in the sub-board for external lighting circuits inclusive of wiring to contactor coil.	No.	1		
1.07	Supply and install Programmable digital time switch with minimum 100 hours reserve and over-ride facility for external lighting.	No.	1		
	Supply, deliver to site and install the following complete with lamps, control gear/drivers as approriate including fixings and supports:		1		
1.08	Type WL- IP65 External bulkhead fitting	No.	14		
1.09	Type SL-Street lights 50W c/w 6m pole, integrated, 90AH, 2V Lithium battery, solar panel, and intelligent dusk to dawn controls	No.	20		
1.10	Gate lights 50W	No.	2		
	SPECIALIZED ITEMS CABLE WAYS				
1.11	**CCTV POINTS** CCTV points drawn in 25mm diameter heavy gauge PVC conduits conceiled in wall and floor slabs including all conduit accessories and draw wire but excluding cabling and termination kits	No.	12		
	TOTAL CARRIED FORWARD TO GRAND SUMMARY PAGE INCL. VAT				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
A.	**GARBAGE RECEPTACLE**				
	SUPPLY, DELIVER , INSTALL ,SET TO WORK AND COMMISSION THE FOLLOWING:-				
	LIGHTING POINTS				
9.01	Lighting point completely wired in 3 x 1.5mm^2 single core PVC insulated copper cables drawn in 20mm diameter heavy gauge PVC conduits including all accessories for one way switching, but excluding the switch and luminaire.	No.	4.00		
	ii) Ditto as in item No. 5.01 but for two way switching	No.	4.00		
9.02	10A white moulded switch plate as Crabtree, MK Logic, Clipsal E- Series or approved equivalent as follows:-				
	i) 10A one gang one way switch	No.	4.00		
	ii) 10A one gang two way switch	No.	2.00		
9.03	**LIGHTING FITTINGS**				
	a) Circular shaped surface mounted led luminaire as Phillips Coreline Cat No. WL131V LED12S/840 PSED EL3 WH **"Type N"**	No.	4.00		
	b) Bulkhead fitting with moulded glass diffuser & Die Cast Aluminium base c/w 16W PL Lamp as Massive Sunderland Cat. No. 71410/01/31 for security lights. **"Type B"**	No.	4.00		
9.04	CCTV points in designtaed locations for survailance, comprising of 25mm diameter HG PVC conduits complete with draw wire and the blanking plate. Allow for draw boxes where all the conduits from each security point converge.	No.	2.00		
	Total Carried Forward to Next Page				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
9.05	300x 300x 100mm deep 16 G galvanized adaptable box.	No.	1.00		
9.06	24A, 240V, 2P DB/CU mounted silent operation contactor for Switching External lights complete with all accessories and as CRABTREE CIK24 or an approved equivalent	No.	1.00		
9.07	Photocell control unit and wired to energize the contactors complete with a D.P override switch as THORN QPK or approved equivalent	No.	1.00		
9.08	6 ways 100A SPN Consumer Unit `G' complete with 100A SPN integral isolator, but excluding the MCBs ,and as Schneider Electric Acti 9 or approved equivalent.	No.	1.00		
9.09	**MCBs for item above as Schneider Electric Acti 9 or approved equivalent**				
	i)10 A SP MCB	No.	1.00		
	ii)32 A SP MCB	No.	1.00		
	iii) Blanking plates	No.	4.00		
9.10	Sub-mains circuits for CU 'G' above comprising of 2 core 6mm2 PVC/SWA/PVC cable drawn in 32mm diameter heavy gauge conduits for gate house	LM	35.00		
TOTAL AMOUNT FOR GARBAGE RECEPTACLE CARRIED FORWARD TO GRAND SUMMARY PAGE					

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
A.	**GUARD HOUSE**				
	SUPPLY, DELIVER , INSTALL ,SET TO WORK AND COMMISSION THE FOLLOWING:-				
	LIGHTING POINTS				
7.01	Lighting point completely wired in 3 x 1.5mm^2 single core PVC insulated copper cables drawn in 20mm diameter heavy gauge PVC conduits including all accessories for one way switching, but excluding the switch and luminaire.	No.	8.00		
	ii) Ditto as in item No. 5.01 but for two way switching	No.	8.00		
7.02	10A white moulded switch plate as Crabtree, MK Logic, Clipsal E- Series or approved equivalent as follows:-				
	i) 10A one gang one way switch	No.	6.00		
	ii) 10A one gang two way switch	No.	4.00		
7.03	**LIGHTING FITTINGS**				
	a) Circular shaped surface mounted led luminaire as Phillips Coreline Cat No. WL131V LED12S/840 PSED EL3 WH **"Type N"**	No.	12.00		
	b) Bulkhead fitting with moulded glass diffuser & Die Cast Aluminium base c/w 16W PL Lamp as Massive Sunderland Cat. No. 71410/01/31 for security lights. **"Type B"**	No.	4.00		
7.04	CCTV points in designtaed locations for survailance, comprising of 25mm diameter HG PVC conduits complete with draw wire and the blanking plate. Allow for draw boxes where all the conduits from each security point converge.	No.	6.00		
	Total Carried Forward to Next Page				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
7.05	300x 300x 100mm deep 16 G galvanized adaptable box.	No.	1.00		
7.06	24A, 240V, 2P DB/CU mounted silent operation contactor for Switching External lights complete with all accessories and as CRABTREE CIK24 or an approved equivalent	No.	1.00		
7.07	Photocell control unit and wired to energize the contactors complete with a D.P override switch as THORN QPK or approved equivalent	No.	1.00		
	POWER AND SOCKET OUTLET POINTS				
7.08	13A SP socket point completely wired in 3 x 2.5mm^2 single core PVC insulated copper cables drawn in 25mm diameter heavy gauge PVC conduits including all accessories but excluding the 13A SP switched socket outlet.	No.	1.00		
7.09	Socket Outlet plates i) 13A SP twin switched socket outlet as MK 2536 or equal & approved equivalent.	No.	1.00		
	TELEPHONE, DATA AND TV POINTS POINTS				
7.10	Data point comprising of draw wire in 25mm diameter Heavy Gauge PVC conduits including all accessories and blanking plate but excluding the data socket outlet.	No.	1.00		
7.11	6 ways 100A SPN Consumer Unit `G' complete with 100A SPN integral isolator, but excluding the MCBs ,and as Schneider Electric Acti 9 or approved equivalent.	No.	1.00		
	Total Carried Forward to Next Page				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
7.12	**MCBs for item above as Schneider Electric Acti 9 or approved equivalent**				
	i)10 A SP MCB	No.	1.00		
	ii)32 A SP MCB	No.	1.00		
	iii) Blanking plates	No.	4.00		
7.13	Sub-mains circuits for CU 'G' above comprising of 2 core 6mm2 PVC/SWA/PVC cable drawn in 32mm diameter heavy gauge conduits for gate house	LM	35.00		
TOTAL AMOUNT FOR GATE HOUSE CARRIED FORWARD TO GRAND SUMMARY PAGE					

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
i)	**POWER HOUSE ELECTRICS**				
A	All lighting points wired in 1.5mm² PVC cu cables in 20mm diameterHG PVC conduit embedded in wall fabrics, roof structure and floor slabs complete with switches as shown on the contract drawings	No	30		
	POWER				
B	4way 63A SPN CU as SCHNEIDER or Equivalent and Approved complete with MCBs or equal and approved.	No	1		
C	All socket outlet points wired in 2.5mm² PVC cable in conduit embedded in floor slabs and in metal trunking complete with 13A twin socket outlet as shown on the drawing	No	6		
D	Provisions for points including laying of conduits and provision of outlet boxes for the following: i) Surveillance Cameras	No	6		
	Total Carried Forward to Next Page				

ITEM	DESCRIPTION	UNIT	QTY	RATE (KSH)	AMOUNT (KSH)
	Total B/F from Previous Pg.				
ii)	**PUMP ROOM ELECTRICS**				
E	All lighting points wired in 1.5mm² PVC cu cables in 20mm diameterHG PVC conduit embedded in wall fabrics, roof structure and floor slabs complete with switches as shown on the contract drawings	No	10		
	POWER				
F	Supply, install and connect 6 way TP/N distribution board for power supply in riser duct complete with 250 Amp integral isolator and MCBs as specified.	No	1		
G	All socket outlet points wired in 2.5mm² PVC cable in conduit embedded in floor slabs and in metal trunking complete with 13A twin socket outlet as shown on the drawing	No	3		
H	400A TPN isolator as KATCO or approved equivalent	No	2		
I	Submains circuit from the External Common Loads LV Board to Pump Room DB in electrical ducts comprising of 95mm2 XLPE/PVC/SWA 4c + 35mm2 sc ECC Copper cables laid in PVC Duct and Trays	Lm.	150		
J	Provisions for points including laying of conduits and provision of outlet boxes for the following: i) Surveillance Cameras	No	6		
	Total Carried Forward to Main Summary Page				

PROPOSED CONSTRUCTION OF THE UTALII COLLEGE STUDENT VILLAGE ACCOMMODATION IN NAIROBI COUNTY(WITH ASSOCIATED INFRASTRUCTURE AND AMENITIES)

ELECTRICAL INSTALLATIONS BILL OF QUANTITIES

GRAND SUMMARY PAGE

ITEM	DESCRIPTION	Unit	Qty	RATE (KSHS)	AMOUNT (KSHS)
1	SUMMARY FOR ELECTRICAL SERVICES FOR G+7 BLOCK STUDENT HOUSING	No	2		
2	SUMMARY FOR ELECTRICAL SERVICES FOR EXTERNAL ELECTRICS	No	1		
2	SUMMARY FOR ELECTRICAL SERVICES FOR EXTERNAL ELECTRICS	No	1		
3	GARBAGE RECEPTACLE	No	1		
4	GATE HOUSE	No	1		
5	POWER HOUSE & PUMP ROOM	No	1		
	TOTALS FOR ELECTRICAL INSTALLATION SERVICES FOR STUDENT HOUSING PROJECT				

Amount in Words: Kenya Shillings……..…..…….....

……
……
Official Stamp & Address:……..……

……
……
Tenderer's Signature:…….……...Date:……...……...……

Witness' Name:……Witness' Signature:……...…..……

Address:……..……...……

Date:……

PROVISIONAL SUMS

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	PROVISIONAL SUMS				
	Drying Yard Provisional Sum				
A	Allow a provisional sum of Kenya Shillings five hundred thousand only for drying yarad	Sum	1		500,000
	Ground Breaking & Project Launch				
B	Allow a provisional sum of Kshs. Five hundred thousand (KSHs. 500,000.00) only for ground breaking, project launch, commissioning and project handover	SUM	1	500,000	500,000
	Allow for profits and overheads	%			
	Allow for attendance	Sum			
	Renders and Printing				
C	Allow a provisional sum of Kshs. Five hundred thousand (KSHs. 500,000) only for preparation of renders and printing	SUM	1	500,000	500,000
	Allow for profits and overheads	%			
	Allow for attendance	Sum			
	Furniture				
D	Allow a provisional sum of Kshs. Forty Five Million, Seven Hundred and Four Thousand Only (KSHs. 45,704,000) only for furniture	SUM	1	45,704,000	45,704,000
	Allow for profits and overheads	%			
	Allow for attendance	Sum			
	ELECTRICAL INSTALLATIONS PROVISIONAL SUMS / EXCLUSIONS				
E	Supply, Installation and Commissioning of lifts	SUM	1		10,600,000
	Allow for profits and overheads	%			
	Allow for attendance	Sum			
F	Fabrication, Supply and commissioning of LV Switchboards Distribution Boards	SUM	1		1,314,000
	Allow for profits and overheads	%			
	Allow for attendance	Sum			
G	Capital contribution to KPLC	SUM	1		2,000,000
	Allow for profits and overheads	%			
	Allow for attendance	Sum			
H	Supply, Installation and Commissioning of MATV	SUM	1		664,000
	Allow for profits and overheads	%			
	Allow for attendance	Sum			
I	1No. 50 KVA Generator	SUM	1		4,000,000
	Allow for profits and overheads	%			
	Allow for attendance	Sum			
J	68.61 kWp Grid-Tie Solar PV System	SUM	1		10,433,300
	Allow for profits and overheads	%			
	Allow for attendance	Sum			
	TOTAL CARRIED FORWARD TO THE NEXT PAGE				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	BROUGHT FORWARD FROM PREVIOUS PAGE				
	MECHANICAL INSTALLATIONS PROVISIONAL SUMS / EXCLUSIONS				
A	Supply only of sanitary fittings	SUM	1		4,555,000
	Allow for profits and overheads	%			
	Allow for attendance	Sum			
B	Booster Pumps supply & installation (25m³/hr. @ 5 Bar)	SUM	1		1,600,000
	Allow for profits and overheads	%			
	Allow for attendance	Sum			
C	32,000 Liters GRP tanks roof level (1 NO)	SUM	4	1,000,000	4,000,000
	Allow for profits and overheads	%			
	Allow for attendance	Sum			
D	Hose reel pumps (100 l/min@ 3Bar) (1 set)	SUM	1		200,000
	Allow for profits and overheads	%			
	Allow for attendance	Sum			
E	External reticulation borehole water	SUM	1		80,000
	Allow for profits and overheads	%			
	Allow for attendance	Sum			
F	External reticulation council water	SUM	1		85,000
	Allow for profits and overheads	%			
	Allow for attendance	Sum			
G	Borehole drilling and equipping	SUM	1		4,500,000
	Allow for profits and overheads	%			
	Allow for attendance	Sum			
H	800 PE waste water treatment plant (civil works and associated mechanical works)				7,000,000
	Allow for profits and overheads	%			
	Allow for attendance	Sum			
I	Sump Pumps 10m3/hr @ 1 bar				450,000
	Allow for profits and overheads	%			
	Allow for attendance	Sum			
	TOTAL FOR PROVISIONAL SUMS CARRIED TO GRAND SUMMARY				

GRAND SUMMARY

PROPOSED CONSTRUCTION OF THE UTALII COLLEGE STUDENT VILLAGE ACCOMMODATION IN NAIROBI COUNTY(WITH ASSOCIATED INFRASTRUCTURE AND AMENITIES)

GRAND SUMMARY			
ITEM	**DESCRIPTION**	**TENDERER'S AMOUNT**	**FOR OFFICIAL USE ONLY**
1.00	PARTICULAR PRELIMINARIES		
2.00	GENERAL PRELIMINARIES		
3.00	PROJECT PROVISIONS		
4.00	HOSTEL BLOCKS -2NO.		
5.00	POWER HOUSE		
6.00	GUARDHOUSE		
7.00	GARBAGE RECEPTACLE		
8.00	CHAINLINK FENCE		
9.00	MECHANICAL WORKS		
10.00	ELECTRICAL WORKS		
11.00	UNDERGROUND WATER TANK		
12.00	ROADWORKS		
13.00	SEWER		
14.00	PROVISIONAL SUMS		
	SUB-TOTAL		
	ADD CONTINGENCY (5%)		
	GRAND TOTAL CARRIED TO FORM OF TENDER (VAT INCLUSIVE)		
	AMOUNT IN WORDS : KENYA SHILLINGS …… TENDERER'S NAME …… ADDRESS …… DATE …… TENDERER'S SIGNATURE …… WITNESS'S NAME…… ADDRESS …… DATE …… WITNESS SIGNATURE……		

PROPOSED CONSTRUCTION OFA STUDENT VILLAGE AND ASSOCIATED SOCIAL INFRASTRUCTURE

COST PER SQM CALCULATION

1.0	**CONSTRUCTION COST**			
				Amount
1.1	Total Tender Sum (A)	Kshs		
2.0	**COST PER SQM CALCULATION**			
2.1	Total Tender Sum (A)	Kshs		
2.2	Gross Built up Area *(Brought forward from project data sheet)*		**11,853**	Sqm
2.3	**Overall Cost per Sqm** **(A / D)**	Kshs		Per Sqm