

PROPOSED SEEQIP SCIENCE LABORATORY

FOR

MINISTRY OF EDUCATION:

SECONDARY EDUCATION EQUITY & QUALITY IMPROVEMENT PROGRAM

BILLS OF QUANTITIES

TENDER NAME: PROPOSED SEEQIP SCIENCE LABORATORY FOR MINISTRY OF EDUCATION
: SECONDARY EDUCATION QUALITY IMPROVEMENT PROJECT

Ministry of Education
Secondary Education Quality Improvement Project
NAIROBI

APRIL, 2026

PRELIMINARIES

Item	Description	Unit	Amount
	<u>PRELIMINARIES</u>		
A.	ADHERENCE TO SAFETY AND HEALTH REQUIREMENTS:	Item	
1	Ensure strict adherence to the provisions of the Occupational Safety and Health Act, 2007, and Work Injury Benefits Act, 2007.		
2	Register the workplace with Directorate of Occupational Safety and Health Services (DOSHS).		
3	Obtain and maintain a Contractor's All Risk Insurance (CAR) Policy.		
4	Obtain and maintain a valid and adequate Work Injury Benefits Insurance (WIBA) Policy.		
5	Employ and Maintain on site an Environmental Social Health and Safety (ESHS) Officer		
6	Develop and Maintain a Contractor's Environmental and Social Management Plan (C-ESMP)		
7	Ensure the safety, health and welfare at work of all persons working at the workplace.		
8	The Sanitation of the works shall be arranged and maintained by the Contractor		
9	Hoarding - Enclose the site or part of the works under construction with a hoarding 2400 mm high consisting of iron sheets on 100 x 50 mm timber posts firmly secured at 1800 mm centres with two 75 x 50 mm timber rails		
10	Ensure Occupation Certificates are sought and issued by the respective county government authorities		
B	Performance Bond- A bond of 5% of the contract sum duly signed, sealed and stamped from an approved Bank or insurance company approved by PPRA.	Item	
C	Plant, tools and vehicles - Allow for providing all scaffolding, plant, tools and vehicles required for the works	Item	
D	Water & Electricity for the Works - The Contractor shall provide at his own risk and cost all necessary water, electric light and power required for use in the works.	Item	
E	Removal of Rubbish - Site to be left clean and free of all rubbish, scaffolds, plant and hoardings on completion	Item	
	NOTE; Tenderer to price for any other preliminary expense they may incur. E.g, Transport, Protective Clothing etc in their rates - NO EXTRA CLAIM ON THIS ITEM SHALL BE ENTERTAINED		
	Section 1 Preliminaries	Carried to Grand Summary	

PARTICULAR PRELIMINARIES

ITEM	DESCRIPTION	AMOUNT
	BILL NO.1 <u>PRELIMINARIES</u> <u>SECTION 1</u> <u>PARTICULAR PRELIMINARIES</u> EMPLOYER A The Employer is the Ministry of Education - Kenya . The term "Employer" and "Government" wherever used in the contract document shall be synonymous. PROJECT MANAGER B The term "P.M" or "Project Manager" 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. ARCHITECT C The term "Architect" shall be deemed to mean "the P.M" as defined above whose address, unless otherwise notified, is 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. QUANTITY SURVEYOR D The term "Quantity Surveyor" shall be deemed to mean "the P.M" as defined above whose address, unless otherwise notified, is 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. STRUCTURAL ENGINEER E The term "Structural Engineer" shall be deemed to mean "the P.M" as defined above whose address, unless otherwise notified, is 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. CIVIL ENGINEER F The term "Civil Engineer" shall be deemed to mean "the P.M" as defined above whose address, unless otherwise notified, is 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.	
	Carried to collection	

	ELECTRICAL ENGINEER A The term "Electrical Engineer" shall be deemed to mean "the P.M" as defined above whose address, unless otherwise notified, is 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. MECHANICAL ENGINEER B The term "Mechanical Engineer" shall be deemed to mean "the P.M" as defined above whose address, unless otherwise notified, is 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. DESCRIPTION OF THE WORKS C The Works consist of the Construction of a laborabory including all associated works.	
	Carried to collection	

A	LOCATION OF SITE The site of the proposed works is..... 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. The Contractor is advised that the site is within a compound in use and all measures should be taken to avoid nuisance to the existing users. All occupation health and safety requirements must be met as required by law. This includes prevention/ minimizing noise, dust, fumes, providing access to public facilities as required (lifts, washrooms, staircases). Notices should be given prior to disruption of services. Where necessary the Contractor will provide temporary facilities for use as instructed by the Project Manager. MEASUREMENTS The works are measured in accordance with the Standard Method of Measurement of Building Works 2008 Edition, published by the Architectural Association of Kenya In the event of any discrepancies arising between the Bills of Quantities and the actual works, the site measurements shall generally take precedence. However, such discrepancies between any contract documents shall immediately be referred to the PROJECT MANAGER SIGNING OF THE TENDER DOCUMENTS The bidder shall append his/her signature and/or company's rubber stamp on each and every page of tender document.	
	Carried to collection	

	DEMOLITIONS AND ALTERATIONS A 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 Project Manager and as necessary for the adequate propping and protection of existing property, finishes, workmen employed on the site, employer's agents 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 works and any necessary making good consequent upon this is to be executed to the satisfaction of the Project Manager. The works shall be propped, strutted and supported as necessary before any alteration or demolition work commences. Prices shall include for all cleaning and preparatory work to structure and finishes and for making good to all finishes on completion whether or not <i>specifically described</i>. Unless described as set aside for re-use all arising debris and surplus materials shall be carefully removed from building and carted away from site. 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 Project Manager that such damage or breakage was inevitable as a result of the condition of the item concerned. MATERIALS FROM DEMOLITIONS B Any materials arising from demolitions and not re-used shall become the property of the Ministry of Public Works. The Contractor shall allow in his rates the cost of transporting the demolished materials to where directed by the Project Manager., CLEARING AWAY C The Contractor shall remove all temporary works, rubbish, debris and surplus materials from the site as they accumulate and upon completion of the works, remove and clear away all plant, equipment, rubbish, unused materials and stains. The whole of the works shall be delivered up clean, complete and in perfect condition in every respect to the satisfaction of the Project Manager. CLAIMS / COMPENSATION EVENTS D 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 PROJECT MANAGER within the contract period. No claim shall be entertained upon the expiry of the said contract period.	
	Carried to collection	

	URGENCY OF THE WORKS A The Contractor is notified that these “ works are urgent” and should be completed within the period stated in the Conditions of Contract. The Contractor shall allow in his rates for any costs he/ she deems that he/she may incur by having to complete these works within the stipulated contract period. PREVENTION OF ACCIDENT, DAMAGE OR LOSS B The Contractor is notified that these works are to be carried out on a restricted site where the client is going on with other nomal activities. The Contractor is thus instructed to take reasonable care in the execution of the works as to prevent accident WORKING CONDITIONS C The Contractor shall allow in his rates for any interferance that he may encounter in the course of the works for the Client may in some cases ask the Contractor not to proceed with the works until some activities within the site are completed. SIGNBOARD D Allow for providing, erecting, maintaining throughout the course of the Contract and afterwards clearing away a signboard as designed, specified and approved by the Project Manager. LABOUR CAMPS E The Contractor shall not be allowed to house labour on site. Allow for transporting workers to and from the site during the tenure of the contract. PRICING RATES F 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.	
	Carried to collection	

	SECURITY A The Contractor shall allow for providing adequate security for the works and the workers in the course of execution of this contract. No claim will be entertained from the Contractor for not maintaining adequate security for both the works and workers. EXISTING SERVICES B Prior to the commencement of any work, the Contractor is to ascertain from the relevant authority the exact position, depth and level of all existing services in the area and he/she shall make whatever provisions may be required by the authorities concerned BID SECURITY C The Bidder shall furnish, as part of his bid, a security in accordance with clause 19.1 of Instruction to Tenderers (Section I of the Tender Document) Guarantees issued as surety for the bid shall be valid for a period of One Hundred and Fifty Six (156) days from the date of Tender Opening. PERFORMANCE SECURITY D A bond of 5% of the contract sum will be required in accordance with clause 48.0 of Instruction to Tenderers (Section I of the Tender Document) and Clause 4.2 of the General Conditions of Contract (Section VIII of the Tender Document). Note that no payments on account of works executed will be made to the Contractor until he has submitted the Performance Bond to the Project Manager, duly stamped signed and sealed by an approved bank or insurance company	
	Carried to collection	

	INSURANCE A The Contractor shall insure as required in Condition No. 18 of the Conditions of Contract. No payment on account of the work executed will be made to the Contractor until he has satisfied the PROJECT MANAGER either by production of an Insurance Policy or Insurance Certificate that the provision of the foregoing Insurance Clauses have been complied with in all respects. Thereafter the PROJECT MANAGER 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 PROJECT MANAGER's inspection. TENDER DOCUMENTS B Tender documents are as listed in Clause 11 of Section I-Instruction to Tenderers of the Tender Document. VALUE ADDED TAX 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 shall familiarise himself with the said notice and allow in all his Bills of Quantities rates for the net tax. (i.e less input tax where applicable) as required by law. The tenderer is advised that in accordance with Government Public Notice No.35 &36 dated 11th September 2003, operational from 1st October 2003, V.A.T will be deducted against the contract sum at the prevailing rate by the Employer and remitted directly to the Commissioner of V.A.T through all interim certificates. It should however be noted that this is not additional tax but a new mode of payment for V.A.T, any excess payment will be refundable once the Contractor has submitted monthly returns to the Commissioner of V.A.T who will do the refunds when satisfied that the V.A.T regulations have been complied with.	
	Carried to collection	

A	FORM OF CONTRACT The Form of Contract shall be as stipulated in the Republic of Kenya's Standard Tender Document for Procurement of Building Works (22nd April 2021 edition and updated in 21st April 2022) included herein under Section VIII of the Tender Documents CONDITIONS OF CONTRACT These are numbered from 1 to 20 as set out under Section VIII of this Tender Document If the Contractor considers that compliance with any of the Conditions of Contract involves any expenses, he shall distribute the cost among the rates for the various items in the Bills of Quantities. No claim shall be allowed arising from the Contractor's compliance with any of the Conditions of Contract. PARTICULARS OF INSERTIONS TO BE MADE IN APPENDIX TO CONTRACT AGREEMENT The following are the insertions to be made in the appendix to the Contract Agreement: - Period of Final Measurement 3 Months From Practical completion Defects Liability Period 6 Months from Practical completion Date for Possession To be agreed with the Project Manager Date for Completion weeks Delay Damages 0.0025% of the contract price per day Period of Interim Certificates Monthly Period of Honouring Certificates 60 days Percentage of Certified Value Retained 10 % Limit of Retention Fund 5 %	
	Carried to collection	

	<u>COLLECTION</u> Brought forward from page PP/1 Brought forward from page PP/2 Brought forward from page PP/3 Brought forward from page PP/4 Brought forward from page PP/5 Brought forward from page PP/6 Brought forward from page PP/7 Brought forward from page PP/8	
	TOTAL FOR PARTICULAR PRELIMINARIES CARRIED TO PRELIMINARIES MAIN SUMMARY	

GENERAL PRELIMINARIES

ITEM	DESCRIPTION	AMOUNT
	BILL NO.2	
	<u>GENERAL PRELIMINARIES</u>	
	PRICING OF ITEMS OF PRELIMINARIES AND PREAMBLES	
A	Prices will be inserted against items of Preliminaries in the Contractor's priced Bills of Quantities and Specification. The Contractor shall be deemed to have included in his prices or rates for the various items in the Bills of Quantities or Specification for all costs involved in complying with all the requirements for the proper execution of the whole of the works in the Contract.	
	ABBREVIATIONS	
B	Throughout these Bills, units of measurement and terms are abbreviated and shall be interpreted as follows:-	
	C.M. Shall mean cubic metre	
	S.M. Shall mean square metre	
	L.M. Shall mean linear metre	
	MM Shall mean Millimetre	
	Kg. Shall mean Kilogramme	
	No. Shall mean Number	
	Prs. Shall mean Pairs	
	B.S. Shall mean the British Standard Specification Published by the British Standards Institution, 2 Park Street, London W.I., England.	
	Ditto Shall mean the whole of the preceding description except as qualified in the description in which it occurs.	
	m.s. Shall mean measured separately.	
	a.b.d Shall mean as before described.	
	Carried to collection	

	SUFFICIENCY OF TENDER A 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 matters and things necessary for the proper completion and maintenance of the works RECORDS B The Contractor shall ensure proper records are kept and maintained for : Daily Reports on Personnel and Machinery; tracked programme; site photographs in digital camera; weather charts/reports; site instruction book and query book. a digital camera shall be provided for taking progress photos PLANT, TOOLS AND VEHICLES C Allow for providing all scaffolding, plant, tools and vehicles required for the works except in so far as may be stated otherwise herein and 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 temporary works of any kind shall be used afterwards in the permanent work. TRANSPORT. D Allow for transport of workmen, materials, etc., to and from the site at such hours and by such routes as may be permitted by the competent authorities.	
	Carried to collection	

	MATERIALS AND WORKMANSHIP. A All work is to be carried out in accordance with the Ministry of Works General Specifications for Building Works, 1976 Edition together with any amendments thereto. All materials and workmanship used in the execution of the work shall be of the best quality and description unless otherwise stated. The Contractor shall order all materials to be obtained from overseas immediately after the Contract is signed and shall also order materials to be obtained from local sources as early as necessary to ensure that they are onsite when required for use in the works. The Bills of Quantities shall not be used for the purpose of ordering materials. SIGN FOR MATERIALS SUPPLIED. B The Contractor will be required to sign a receipt for all articles and materials supplied by the CLIENT at the time of taking deliver thereof, as having received them in good order and condition, and will thereafter be responsible for any loss or damage and for replacements of any such loss or damage with articles and/or materials which will be supplied by the CLIENT at the current market prices including Customs Duty and V.A.T., all at the Contractor's own cost and expense, to the satisfaction of the PROJECT MANAGER STORAGE OF MATERIALS C 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 the satisfaction of the PROJECT MANAGER. Nominated Sub-Contractors are to be made liable for the cost of any storage accommodation provided especially for their use.	
	Carried to collection	

	SAMPLES A The Contractor shall furnish at his own cost any samples of materials or workmanship including concrete test cubes required for the works that may be called for by the PROJECT MANAGER for his approval until such samples are approved by the PROJECT MANAGER and the PROJECT MANAGER may reject any materials or workmanship not in his opinion to be up to approved samples. The PROJECT MANAGER shall arrange for the testing of such materials as he may at his discretion deem desirable, but the testing shall be made at the expense of the Contractor and not at the expense of the PROJECT MANAGER. The Contractor shall pay for the testing in accordance with the current scale of testing charges laid down by the Ministry of Public Works. The procedure for submitting samples of materials for testing and the method of marking for identification shall be as laid down by the PROJECT MANAGER. The Contractor shall allow in his tender for such samples and tests except those in connection with nominated sub-contractors' work. GOVERNMENT ACTS REGARDING WORK PEOPLE ETC. B Allow for complying with all Government Acts, Orders and Regulations in connection with the employment of Labour and other matters related to the execution of the works. In particular the Contractor's attention is drawn to the provisions of the Factory Act 1950 and his tender must include for all costs arising or resulting from compliance with any Act, Order or Regulation relating to Insurances, pensions and holidays for workpeople or so the safety, health and welfare of the workpeople. The Contractor must make himself fully acquainted with current Acts and Regulations including Police Regulations regarding the movement, housing, security and control of labour, labour camps , passes for transport, etc. It is most important that the Contractor, before tendering, shall obtain from the relevant Authority the fullest information regarding all such regulations and/or restrictions which may affect the information regarding all such regulations and/or restrictions which may affect the organisation of the works, supply and control of labour, etc., and allow accordingly in his tender. No claim in respect of want of knowledge in this connection will be entertained.	
	Carried to collection	

	PUBLIC AND PRIVATE ROADS. A The contractor shall maintain as required throughout the execution of the works and make good any damage to public or private roads arising from or consequent upon the execution of the works to the satisfaction of the local and other competent authority and the Project Manager. EXISTING PROPERTY. B The Contractor shall take every precaution to avoid damage to all existing property including roads, cables, drains and other services and he will be held responsible for and shall make good all such damage arising from the execution of this contract at his own expense to the satisfaction of the Project Manager. OCUPATIONAL HEALTH AND SAFETY MEASURES D The Project Manager expects the contractor 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 company name clearly printed on the back each with clearly marked Identification Numbers stitched or imprinted on. The Contractor shall allow for providing all watching, lighting, 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 first aid staff, access to ambulance services at all worksites and arrangement to access local hospital/dispensary with qualified medical staff. The Project Manager expects full compliance to this regulation and no excuses will be entertained for non-compliance. OCUPATIONAL HEALTH AND SAFETY PERSONEL E The contractor shall allow for Occupational Health and Safety personnel as directed and afford every reasonable facility for the performance of their duties.	
	Carried to collection	

	ACCESS TO SITE AND TEMPORARY ROADS. A Means of access to the Site shall be agreed with the CLIENT prior to commencement of the work and Contractor must allow for building any necessary temporary access roads for the transport of the 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 to the Site. Upon completion of the works, the Contractor shall remove such temporary access roads; temporary culverts, bridges, etc., and make good and reinstate all works and surfaces disturbed to the satisfaction of the PROJECT MANAGER AREA TO BE OCCUPIED BY THE CONTRACTOR B The area of the site which may be occupied by the Contractor for use of storage and for the purpose of erecting workshops, etc., shall be defined on site by the PROJECT MANAGER OFFICE FOR THE PROJECT MANAGER C The contractor shall , if so instructed, supply, maintain, service, clean and light a fully furnished, suitable office, having an approximate floor area of not less than 100 sqm for exclusive use of the project. The office shall have a sample room, a toilet and bathroom, kitchen of suitable dimensions with clean running water and electricity connected to the approval of the Project Manager. The Contractor shall provide, erect and maintain a lock-up type water or bucket closet for the sole use of the PROJECT MANAGER including making temporary connections to the drain where applicable to the satisfaction of Government and Medical Officer of Health and shall provide services of cleaner and pay all conservancy charges and keep both office and closet in a clean and sanitary condition from commencement to the completion of the works and dismantle and make good disturbed surfaces. The office and closet shall be completed before the Contractor is permitted to commence the works. The Contractor shall make available on the Site as and when required by the "PROJECT MANAGER" a modern and accurate level together with levelling staff, ranging rods and 50 metre metallic or linen tape. On completion of the contract, the contents of the office specified above shall revert to the Client. The contractor shall be responsible throughout the contract period for provision of insurance cover, maintenance of the office equipment and furniture, providing all necessary staff and providing security and garbage disposal facilities	
	Carried to collection	

A	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. WATER RESOURCES AND USEAGE The Contractor shall provide at his own risk and cost all necessary water required for use in the works. The Contractor must make his own arrangements for connection to the nearest suitable water main and for metering the water used. He must also provide temporary tanks and meters as required at his own cost and clear away when no longer required and make good on completion to the entire satisfaction of the PROJECT MANAGER . The Contractor shall pay all charges in connection herewith. No guarantee is given or implied that sufficient water will be available from mains and the Contractor must make his own arrangements for augmenting this supply at his own cost. 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. SANITATION OF THE WORKS The Sanitation of the works shall be arranged and maintained by the Contractor to the satisfaction of the Government and/or Local Authorities, Labour Department and the PROJECT MANAGER He may however be allowed use of the existing sanitation facilities but shall be responsible for the proper hygienic maintenace and any damage whatsoever. No guarantees are however given regarding the adequacy of the existing services The Contractor will be required to pay all conservancy charges and shall ensure clean daily maintenance and disinfecting of the latrines, 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 Architect and local authorities. SUPERVISION AND WORKING HOURS The works shall be executed under the direction and to the entire satisfaction in all respects of the PROJECT MANAGER who shall at all times during normal working hours have access to the works and to the yards and workshops of the Contractor and sub-Contractors or other places where work is being prepared for the contract.	
	Carried to collection	

	PROVISIONAL SUMS. A The term "Provisional Sum" wherever used in these Bills of Quantities shall have the meaning stated in Section A item A7(i) of the Standard Method of Measurement. Such sums are net and no addition shall be made to them for profit. PRIME COST (OR P.C.) SUMS. B The term "Prime Cost Sum" or "P.C. Sum" wherever used in these Bills of Quantities shall have the meaning stated in Section A item A7 (ii) of the Standard Method of Measurement . Persons or firms nominated by the Project Manager to execute work or to provide and fix materials or goods are described herein as Nominated Sub-Contractors. Persons or firms so nominated to supply goods or materials are described herein as Nominated Suppliers. PROGRESS CHART. C The Contractor shall provide within two weeks of Possession of Site and in agreement with the PROJECT MANAGER a Progress Chart for the whole of the works including the works of Nominated Sub-Contractors ; one copy to be handed to the PROJECT MANAGER and a further copy to be retained on Site. Progress to be recorded and chart to be amended as necessary as the work proceeds. ADJUSTMENT OF P.C. SUMS. D In the final account all P.C. Sums shall be deducted and the amount properly expended upon the PROJECT MANAGER'S order in respect of each of them added to the Contract sum. The Contractor shall produce to the PROJECT MANAGER such quotations, invoices or bills, properly receipted, as may be necessary to show the actual details of the sums paid by the Contractor. Items of profit upon P.C. Sums shall be adjusted in the final account pro-rata to the amount paid. Items of "attendance" (as previously described) following P.C. Sums shall be adjusted pro-rata to the physical extent of the work executed (not pro-rata to the amount paid) and this shall apply even though the Contractor's priced Bill shows a percentage in the rate column in respect of them. Should the Contractor be permitted to tender and his tender be accepted of any work for which a P.C. Sum is included in these Bill of Quantities profit and attendance will be allowed at the same rate as it would be if the work were executed by a Nominated Sub-Contractor.	
	Carried to collection	

	ADJUSTMENT OF PROVISIONAL SUMS. A In the final account all Provisional Sums shall be deducted and the value of the work properly executed in respect of them upon the PROJECT MANAGER's order added to the Contract Sum. Such work shall be valued , but should any part of the work be executed by a Nominated Sub-Contractor or the value of such work or articles for the work to be supplied by a Nominated Supplier, the value of such work or articles shall be treated as a P.C. Sum and profit and attendance comparable to that contained in the priced Bills of Quantities for similar items added. NOMINATED SUB-CONTRACTORS B When any work is ordered by the PROJECT MANAGER to be executed by nominated sub-contractors, the Contractor shall enter into sub-contracts and shall thereafter be responsible for such sub-contractors in every respect. Unless otherwise described the Contractor is to provide for such Sub-Contractors any or all of the facilities described in these Preliminaries. The Contractor should price for these with the nominated Sub-contract Contractor's work concerned in the P.C. Sums under the description "add for Attendance". DIRECT CONTRACTS C 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 and allowed.	
	Carried to collection	

	ATTENDANCE UPON OTHER TRADESMEN, ETC. A The Contractor shall allow for the attendance of trade upon trade and shall afford any tradesmen or other persons employed for the execution of any work not included in this Contract every facility for carrying out their work and also for use of his ordinary scaffolding. The Contractor, however, shall not be required to erect any special scaffolding for them. The Contractor shall perform such cutting away for and making good after the work of such tradesmen or persons as may be ordered by the PROJECT MANAGER and the work will be measured and paid for to the extent executed at rates provided in these Bills. PROVISIONAL WORK B All work described as "Provisional" in these Bills of Quantities is subject to remeasurement in order to ascertain the actual quantity executed for which payment will be made. All "Provisional" and other work liable to adjustment under this Contract shall be left uncovered for a reasonable time to allow all measurements needed for such adjustment to be taken by the PROJECT MANAGER. Immediately the work is ready for measuring, the Contractor shall give notice to the PROJECT MANAGER. If the Contractor makes default in these respects he shall, if the PROJECT MANAGER so directs, uncover the work to enable all measurements to be taken and afterwards reinstate at his own expense.	
	Carried to collection	

	ALTERATIONS TO BILLS, PRICING, ETC. A Any unauthorised alteration or qualification made to the text of the Bills of Quantities may cause the Tender to be disqualified and will in any case be ignored. The Contractor shall be deemed to have made allowance in his prices generally to cover any items against which no price has been inserted in the priced Bills of Quantities. All items of measured work shall be priced in detail and the Tenders containing Lump Sums to cover trades or groups of work must be broken down to show the price of each item before they will be accepted. BLASTING OPERATIONS B Blasting will only be allowed with the express permission of the PROJECT MANAGER 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 PROJECT MANAGER governing the use and storage of explosives. MATERIALS ARISING FROM EXCAVATIONS C Materials of any kind obtained from the excavations shall be the property of the Client. Unless the PROJECT MANAGER directs otherwise such materials shall be dealt with as provided in the Contract. Such materials shall only be used in the works, in substitution of materials which the Contractor would otherwise have had to supply with the written permission of the PROJECT MANAGER. Should such permission be given, the Contractor shall make due allowance for the value of the materials so used at a price to be agreed. TEMPORARY DISPOSAL OF STORM WATER D 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. The contractor shall control earthwork through cascading gabions and distribution channels from storm water. Protect excavated sections of the route of storm water during heavy rains. Provide erosion channels to natural drains and rivers/streams to minimize erosion. Design to incorporate existing drainage pattern and avoid disturbing the same	
	Carried to collection	

	PROTECTION OF THE WORKS. A Provide protection of the whole of the works contained in the Bills of Quantities,including casing , casing up, covering or such other means as may be necessary to avoid damage to the satisfaction of the PROJECT MANAGER and remove such protection when no longer required and make good any damage which may nevertheless have been done at completion free of cost to the Client. WORKS TO BE DELIVERED UP CLEAN B Clean and flush all gutters, rainwater and waste pipes, manholes and drains, wash (except where such treatment might cause damage) and clean all floors, sanitary fittings,glass inside and outside and any other parts of the works and remove all marks,blemishes, stains and defects from joinery, fittings and decorated surfaces generally,polish door furniture and bright parts of metalwork and leave the whole of the buildings watertight, clean, perfect and fit for occupation to the approval of the PROJECT MANAGER GENERAL SPECIFICATION. C For the full description of materials and workmanship, method of execution of the work and notes for pricing, the Contractor is referred to the Ministry of Roads and Public Works and Housing General Specification dated 1976 or any subsequent revision thereof which is issued as a separate document, and which shall be allowed in all respects unless it conflicts with the General Preliminaries, Trade Preambles or other items in these Bills of Quantities.	
	Carried to collection	

	TRAINING LEVY A The Contractor's attention is drawn to legal notice No. 237 of October, 1971, which requires payment by the Contractor of a Training Levy at the rate of 1/4 % of the Contract sum on all contracts of more than Kshs. 50,000.00 in value. MATERIALS ON SITE B All materials for incorporation in the works must be stored on or adjacent to the site before payment is effected unless specifically exempted by the PROJECT MANAGER. This includes the materials of the Main Contractor, Nominated Sub-Contractors and Nominated Suppliers. HOARDING C The Contractor shall enclose the site or part of the works under construction with a hoarding 2400 mm high consisting of iron sheets on 100 x 50 mm timber posts firmly secured at 1800 mm centres with two 75 x 50 mm timber rails for a total length of approximately five hundred meters(1500 m) including all necessary gates. The Contractor is in addition required to take all precautions necessary for the safe custody of the works,materials, plant, public and Employer's property on the site. CONTRACTOR'S SUPERINTENDENCE/SITE AGENT D 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 Project Manager and such directions shall be deemed to have been given to the Contractor in accordance with the Conditions of Contract.	
	Carried to collection	

	<u>COLLECTION</u> Brought Forward From Page GP/1 Brought Forward From Page GP/2 Brought Forward From Page GP/3 Brought Forward From Page GP/4 Brought Forward From Page GP/5 Brought Forward From Page GP/6 Brought Forward From Page GP/7 Brought Forward From Page GP/8 Brought Forward From Page GP/9 Brought Forward From Page GP/10 Brought Forward From Page GP/11 Brought Forward From Page GP/12 Brought Forward From Page GP/13	
	TOTAL FOR GENERAL PRELIMINARIES CARRIED TO PRELIMINARIES MAIN SUMMARY	

PRELIMINARIES SUMMARY PAGE

BILL NO	BILL TITLE	PAGE NO.	AMOUNT
1	PARTICULAR PRELIMINARIES	PP/10	
2	GENERAL PRELIMINARIES	GP/14	
TOTAL CARRIED TO GRAND SUMMARY			

BUILDER'S WORK

Item	Description	Unit	Quantity	Rate	Amount
	<u>ELEMENT NO. 1</u>				
	<u>SUBSTRUCTURES (PROVISIONAL)</u>				
	<u>Site clearance</u>				
A	Clear site of works of grass, shrubs, bush and small trees, grub up roots, fill with selected soil and burn debris (Approx 235 square meters)		Item		
B	Destroy termites nests within site of works, take out and destroy queens, impregnate holes and tunnels with insecticide and fill voids with approved material		Item		
C	Allow for keeping the whole of the excavation free from general water and from all fallen materials including rubbish		Item		
	<u>Oversite excavations</u>				
D	Excavate vegetable soil average 150mm thick deep and deposit approx 100m away from site in soil heaps for re-use in landscaping	m2	235		
	<u>Excavations</u>				
	<u>Tenderer to allow for working space in his rates.</u>				
	<u>All excavations shall be measured net and no allowance shall be made for working space as per SMM D5(g)</u>				
E	Excavate to reduce levels not exceeding 1.5 m deep starting from stripped level; (Average 200mm deep)	m3	47		
F	Excavate trenches for Strip footing not exceeding 1.5 metres commencing from reduced level	m3	104		
G	Extra over all excavations for excavating in any type of rock.	m3	5		
	Total Carried forward to next page				

Item	Description	Unit	Quantity	Rate	Amount
	Brought Forward from previous page				
	<u>Filling and Disposal</u>				
A	Return, fill and ram approved imported filling around foundations.	m3	73		
B	Load and cart away excavated materials away from site and spread as directed	m3	78		
C	Approved imported fill to make up levels: spread levelled, watered, well rammed and compacted in layers not exceeding 150mm thick around excavations: to the satisfaction of the Structural Engineer	m3	58		
	<u>Hardcore or other approved filling, as described</u>				
D	300mm thick selected and handpicked hardcore filling , depositing and compacting in layers of 150mm maximum thickness; including 50mm thick murrum blinding to surfaces of fill	m3	193		
	<u>Anti-termite treatment</u>				
E	Chemical anti-termite treatment, executed complete by an approved specialist under a ten-year guarantee, to surfaces of hardcore and vertical sides of excavated surfaces	m2	208		
	<u>Damp-proof membrane</u>				
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)	m2	208		
	<u>Plain concrete class 15 in:</u>				
G	50mm blinding under strip foundations	m2	58		
	Total Carried forward to next page				

Item	Description	Unit	Quantity	Rate	Amount
	Brought Forward from previous page				
	<u>Reinforced concrete class 25 (Maximum gauge of course aggregate 25mm) in:</u>				
A	Strip foundation	m3	12		
B	125mm thick surface bed	m2	196		
C	125mm Sloping Ramp	m2	12		
	<u>Reinforcement, (measured nett)</u>				
	<u>Reinforcement to BS 4461, Grade 460B high strength type 2 Ribbed bars with proof stress of 460 N/mm2; Including all necessary cutting, bending, fixing, wastage, overlaps and provision of spacer blocks and stools to S.E's detail</u>				
D	8mm diameter bars	kg	365		
	<u>Steel mesh fabric reinforcement to BS 4483 : including setting in concrete with 300mm laps(measured nett : no allowance for laps)</u>				
E	Ref A142 weighing 2.22 kilogrammes per square metre in floor beds	m2	208		
	<u>Sawn formwork as described to:-</u>				
F	Edge of surface bed, over 75mm but not exceeding 150mm high	m	62		
G	Ditto to Edges of ramp	m	18		
	<u>Natural hard approved quarry stone walling with a crushing strength of 7 N/mm²; walling bedded and jointed in cement and sand (1:4) mortar, reinforcement with and including 25mm wide x 20 gauge hoop iron at every alternate course as described in:</u>				
H	200 mm Thick wall, medium chisel dressed on both sides.	m2	99		
	Total Carried forward to next page				

Item	Description	Unit	Quantity	Rate	Amount
	<u>ELEMENT No. 2</u>				
	<u>REINFORCED CONCRETE SUPERSTRUCTURE</u>				
	<u>Reinforced concrete class 25 (Maximum gauge of course aggregate 25mm) in:</u>				
A	Beams	m3	4		
B	150mm thick slab	m2	4		
	<u>Reinforcement, (measured nett)</u>				
	<u>Reinforcement to BS 4461, Grade 460B high strength type 2 Ribbed bars with proof stress of 460 N/mm2; Including all necessary cutting, bending, fixing, wastage, overlaps and provision of spacer blocks and stools to S.E's detail</u>				
C	Various diameter bars (8mm & 10mm)	kg	360		
	<u>Sawn formwork, as described, to:-</u>				
D	Sides and soffits of beams	m2	50		
E	Soffits of slabs	m2	4		
F	Edge of surface bed, over 75mm but not exceeding 150mm high	m	11		
	<u>Steel work</u>				
G	75mm diameter x 3mm thick x 3000mm long black pipe top end with welded U-holder butt for 100 x 50mm tie beam (m.s) including footing lugs, stays, etc all necessary excavations in mass concrete class 20 footing	No	7		
	<u>In sawn celcure treated cypress Grade 2:</u>				
H	100 x 50mm tie beam on the steel poles above	m	19		
	Total Carried forward to next page				

Item	Description	Unit	Quantity	Rate	Amount
	<u>ELEMENT No 3</u>				
	<u>WALLING</u>				
	<u>Vents</u>				
A	250mm x 150mm brick vents	No	12		
	<u>Natural hard machine cut stone from an approved quarry with a crushing strength of 7.0 N/mm²; walling bedded and jointed in cement and sand (1:3) mortar, with and including reinforcement with and including 25mm wide x 20 gauge hoop iron at every alternate course as described in;</u>				
	<u>External Walling</u>				
B	150mm thick externally	m2	132		
C	150mm thick externally - Gable	m2	18		
D	Extra over for raking and cutting on gable wall	m	18		
E	Extra over for 300 x 300mm masonry piers, 4,500mm high (Including 1,200mm below ground)	No	13		
F	Labour and materials for eaves filling average 150mm high	m	51		
	<u>Internal Walling</u>				
G	150mm thick walling internally	m2	45		
	<u>Damp proof courses, as described:</u>				
H	150mm wide bituminous felt damp proof course	m	67		
	Element No. 3				
	Walling				
	Carried Forward to				
	Builder's Summary				

Item	Description	Unit	Quantity	Rate	Amount
	<u>ELEMENT No. 4</u>				
	<u>ROOF (PROVISIONAL)</u>				
	<u>All the timber to be seasoned and treated with anti - termite treatment</u>				
	<u>The following in 13 No roof trusses with and including bolted connections including hoisting and fixing in position not exceeding 3.50 metres above ground floor level</u>				
	<u>In sawn celcure treated cypress Grade 2:</u>				
A	100 x 50mm rafter	m	153		
B	100 x 50mm tie beam	m	107		
C	75 x 50mm ties/struts	m	150		
D	75 x 50mm kingpost	m	23		
	<u>Joints</u>				
E	Extra over 150 x 50mm member for scarfed joints strapped in 16 gauge and 25mm wide hoop iron ties	No	65		
	<u>Common timbers</u>				
	<u>In sawn celcure treated cypress Grade 2:</u>				
F	75 x 50 mm purlin	m	294		
G	200 x 50mm fascia & barge board	m	64		
H	100 x 50mm brackets	m	30		
J	100 x 50mm wall plate fixed with and including 200mm long 10mm diameter rag bolts cast into beam at 1200mm centres	m	48		
	Total Carried forward to next page				

[illegible]

Item	Description	Unit	Quantity	Rate	Amount
	<u>ELEMENT No 5</u>				
	<u>DOORS</u>				
	<u>Supply and fix softwood Frames with and including supply of low expansion polyurethane foam ; in Wrot cypress or equivalent softwood and approved (stained to match the colour of veneer):</u>				
A	Ex 50 x 200mm Frame with one labour and 10mm groove to detail; plugged	m	18		
B	Ditto Transome	m	3		
C	Ex 75 x 25mm Architrave with 10mm groove to detail; plugged	m	36		
D	Ex 25 x 25mm quadrant	m	36		
	Semi-solid core Flush doors				
	<u>45mm thick semi solid core flush door to B.S 459: part 2 faced both sides with 3mm water proof ply board machine pressed and lipped on all edges in hardwood, all as per Architects details</u>				
E	Single Leaf Door size 900mm x 2400mm high	No	3		
	<u>Fanlight - Clear Sheet Glass</u>				
F	5mm Glass and glazing to metal with putty in panes, girth - 0.10 to 0.50 square meters	m ²	1		
	<u>Supply and fix the following ironmongery as approved with matching screws:-</u>				
G	Brass ball bearing hinges; 100 mm	Prs	4.5		
H	Three lever mortice lock complete with furniture	No	3		
J	Rubber door stop to concrete floor	No	7		
	Total Carried forward to next page				

Item	Description	Unit	Quantity	Rate	Amount
	<u>ELEMENT NO. 6</u>				
	<u>WINDOWS</u>				
	<u>Precast concrete class 20 fair faced all exposed surfaces bedded and jointed cement and sand (1:3) mortar</u>				
A	250 x 50mm thick window cill once rebated and throated laid and jointed in cement and sand 1:3 mortar	m	6		
	<u>Supply, assemble and fix the following purpose made (standard W20 heavy duty sections) steel casement windows finished in one coat red oxide primer complete with opening accessories and permanent vents for the full width of window as detailed including fixing lugs to stone wall and pointing all round frames in mastic:-</u>				
B	Window W1 Overall size 1,700 x 1,200mm high - (2No. Side hang openable size 500mm x 900mm high)	No	4		
C	Window W2 Overall size 1,200 x 1,200mm high - (2No. Side hang openable size 500mm x 900mm high)	No	2		
D	Window W3 Overall size 1,700 x 1,200mm high - (2No. Top hang openable size 500mm x 600mm high)	No	2		
E	Window W3 Overall size 1,200 x 1,200mm high - (2No. Top hang openable size 500mm x 600mm high)	No	4		
	<u>Metal Screen (hoisted and Screwed to wall openings to a height not exceeding 8000 mm above ground floor level); Note: All welding should be ground smooth; Prepare and apply two coats zinc chromate on surfaces of structural steelwork; one before and one after erection</u>				
F	Steel mesh expanded metal screen infill 1.5mm thick; welded to frame 25 x 25 x 2.5 mm S.H.S Sections profile steel frame, fixed to walls or reinforced concrete by bolting; all in accordance with referenced architect's drawings	m2	6		
	Total Carried forward to next page				

Item	Description	Unit	Quantity	Rate	Amount
	Brought Forward from previous page				
	<u>Glazing; To metalwork with putty;</u>				
	<u>4 mm Thick clear float sheet glass and glazing to metal as described in :-</u>				
A	In panes not exceeding 0.10 - 0.50 square metres;	m2	15		
B	Ditto but obscure glass	m2	6		
	<u>Prepare and apply one undercoat and two finishing coats of gloss oil paint;</u>				
C	Generally metal surfaces; both sides measured;	m2	30		
	<u>Finishing to reveals</u>				
	<u>12 mm cement and sand (1:3) plaster/render,finished with woodfloat to:-</u>				
D	Concrete or masonry surfaces; external	m2	7		
E	Concrete or masonry surfaces; internal	m2	7		
	<u>Painting and decorating</u>				
	<u>Prepare and apply two undercoats and one finish gloss oil paint on:-</u>				
F	Plastered walls internally;	m2	7		
	<u>Prepare and apply three coats exterior premium quality silicon based weather guard paint to:</u>				
G	Rendered wall; external	m2	7		
	Element No. 6				
	Windows				
	Carried Forward to				
	Builder's Summary				

Item	Description	Unit	Quantity	Rate	Amount
	<u>ELEMENT NO. 7</u>				
	<u>FINISHES</u>				
	<u>Wall finishes</u>				
	<u>External</u>				
	<u>Cement and sand (1:3) screeds;</u>				
A	Pointing masonry walls in flush vertical and horizontal pointed joints externally.	m2	150		
	<u>12 mm cement and sand (1:3) render,finished with woodfloat to:-</u>				
B	Concrete or masonry surfaces externally.	m2	22		
	<u>Painting and decorating</u>				
	<u>Prepare and apply three coats exterior premium quality silicon based weather guard paint: colour to approval by application strictly in accordance with suppliers printed instructions</u>				
C	Plastered surfaces externally;	m2	22		
	<u>Internal</u>				
	<u>12mm (minimum) two coat lime plaster; Plaster; 9mm thick first coat of cement and sand (1:6); 3mm second coat of cement and lime putty (1:10); steel trowelled smooth; complete with wire gauze anti-crack mechanism at the intersection of masonry walling and concrete beams as described to:-</u>				
D	Concrete or masonry surfaces internally.	m2	262		
	<u>Painting and decorating</u>				
	<u>Prepare and apply three coats first quality silk vinyl emulsion paint on:-</u>				
E	Plastered surfaces internally;	m2	262		
	Total Carried forward to next page				

Item	Description	Unit	Quantity	Rate	Amount
	Brought Forward from previous page				
	<u>Floor Finishes</u>				
	<u>Coloured Screed, cement and sand (1:3); steel trowelled hard and smooth</u>				
A	40 mm thick paving	m2	189		
B	Ditto Ramp	m2	12		
C	Open strings 100mm extreme wide	m	18		
D	Skirting, 100mm wide rounded junction with wall finish and coved junction with floor; internal	m	94		
	<u>Ceiling</u>				
	<u>Supply & fix Premium Grade Gypsum Board ceiling including vertical drops, coves, boxings & fascias using 12.5mm Gypsum Board Sheets as per design. Complete with Aluminium suspension Tee system and all specifications as aforementioned in 12.5mm thick MR Boards; to</u>				
E	12 mm thick ceiling; horizontal	m2	0		
F	25 x 25mm high moulded gypsum cornice; with one labour	m	0		
	<u>Painting and decorating</u>				
	<u>Skim, Prepare and apply three coats first quality silk vinyl emulsion paint on:-</u>				
G	Gypsum soffits	m2	0		
H	Surfaces not exceeding 100mm girth	m	0		
	Element No. 7				
	Finishes				
	Carried Forward to				
	Builder's Summary				

Item	Description	Unit	Quantity	Rate	Amount
	<u>ELEMENT NO. 8</u>				
	<u>FITTING AND JOINERY WORKS</u>				
	<u>Fittings</u>				
A	Plinth- 100mm thick	m2	0		
	<u>Worktop</u>				
	<u>750mm wide tops; 75mm thick reinforced concrete (class 25/20 mm aggregate) suspended worktop and fascia; Single layer fabric mesh reinforcement to BS 4483 ref. A142 weighing ; 2.22 kg per square metre fixed in suspended worktop; Sawn formwork to horizontal soffits and sides of worktop and vertical edges of suspended slab; build end of 75 mm thick suspended concrete slab in masonry walling, 100 mm thick;</u>				
	<u>Rate to also include extra over cutting for sinks, plastering and paint on the under surface and screed to the top, edges, 300mm high fascia</u>				
B	10,500mm long; allow for forming holes for sink (m.s)	No	1		
C	10,200mm long; allow for forming holes for sink (m.s)	No	1		
D	4,200mm long; allow for forming holes for sink (m.s)	No	1		
E	4,100mm long; allow for forming holes for sink (m.s)	No	5		
F	3,000mm long; allow for forming holes for sink (m.s)	No	1		
G	1,350mm long; allow for forming holes for sink (m.s)	No	1		
	<u>Terrazzo finishes to surfaces of worktop</u>				
H	20mm thick terrazzo paving to approval including plastic dividing strips set flush with paving; machine polished	m2	0		
J	150 x 20mm terrazzo backsplash	m	33		
	Total Carried forward to next page				

Item	Description	Unit	Quantity	Rate	Amount
	Brought Forward from previous page				
	<u>Wooden shelves</u>				
A	600 mm wide x 450mm deep x 2,000 mm high, lockable shelves, with wrot cypress framing and block board horizontal and vertical partitions, painted MDF doors; primed to Architect's approval, including all necessary iron mongery	m	0		
	<u>Cupboards below worktops</u>				
	<i><u>The following in blockboard shelf, sides dividers, back etc to cypress framings; stained moulded oak veneered blockboard drawers and doors, complete with malpha hinges viro make cylinder lock, handles and eggshell paint</u></i>				
B	Low level cupboard size 4,200 x 600 x 900mm high	No	0		
	<u>12mm thick Medium Density Fibre board finihsed in white formica laminate plugged to concrete or masonry with all the necessary fixing accessories; complete with aluminium framing all round</u>				
C	White Board: Overall Length 2400mm x 1200mm high	No	0		
D	Graph Board: Overall Length 1200mm x 1200mm high	No	0		
	Gas Cubicle				
	<i><u>The following in 100mm thick x 2,500mm high masonry walling, plastered and painted; 100mm thick mass concrete plinth finished with 8mm thick ceramic floor tiles; 75mm reinforced concrete roof covering; 750 x 3000mm mild steel louvred doors complete with necessary ironmongery, primed and painted; all to interior designer details</u></i>				
E	Gas Cubicle size 2,000 x 800mm x 2,500mm high	No	1		
	Element No. 8				
	Joinery Fittings				
	Carried Forward to				
	Builder's Summary				

SOAK PIT

PROPOSED SCIENCE LABORATORY FOR MINISTRY OF EDUCATION				SOAK PIT (All Provisional)		
		Qty	Unit	Rate	KSHS	CTS
	D20 EXCAVATING AND FILLING; SITE					
	PREPARATION;					
	Clearing site vegetation, grubbing up roots and filling up voids left with selected excavated material;					
	Bushes, shrubs, undergrowth or the like and cart away from site;					
a	EXCAVATING	12	SM			
	Bulk excavation for soak pit;					
b	Depth not exceeding 1.5 m deep starting from reduced level;	7	CM			
	Ditto but depth over 1.5 m but not exceeding 3.0 m deep starting from reduced level;					
c	Excavation for strip foundation footing;	2	CM			
	Not exceeding 1.5 m deep starting from reduced level;					
d	Extra over excavation irrespective of depth for breaking out;	3	CM			
	Soft rock; Hard					
e f	rock;	1	CM			
	DISPOSAL	2.6	CM			
	Surplus Excavated material;					
g	Spreading on site as directed;	4	CM			
	FILLING TO EXCAVATIONS					
h	Return fill and ram selected excavated material;	8	CM			
To Collection KSHS						

PROPOSED SCIENCE LABORATORY FOR MINISTRY OF EDUCATION				SOAK PIT (All Provisional)		
		Qty	Unit	Rate	KSHS	CTS
	D20 EXCAVATING AND FILLING; continued ...					
	HARDCORE					
a	Over 300 mm thick; well compacted in layers of 150mm maximum thickness to approval of the Structural Engineer;	2	CM			
	E05 IN SITU CONCRETE CONSTRUCTION GENERALLY					
	50 mm thick mass concrete 1:4:8 foundation blinding;					
	To strip foundation footings; Generally;					
b	Vibrated Reinforced Concrete; Class 20/20;	3	SM			
	Strip foundation footings; Generally;					
	Pit Cover Slab; 150					
c	mm thick;	1	CM			
	E20 FORMWORK FOR IN SITU CONCRETE SAWN					
d	FORMWORK	8	SM			
	Vertical Sides of strip footing; Over					
	300 mm wide;					
	Soffits of suspended cover; Over					
e	300 mm wide;	2	SM			
f		8	SM			
To Collection KSHS						

PROPOSED SCIENCE LABORATORY FOR MINISTRY OF EDUCATION				SOAK PIT (All Provisional)		
		Qty	Unit	Rate	KSHS	CTS
	E20 FORMWORK FOR IN SITU CONCRETE continued...					
	SAWN FORMWORK					
a	Edges of pit cover; Over 75 mm but not exceeding 150 mm girth; Extra over for boxing formwork;	5	LM			
b	Size 600 x 450 mm;	1	NO			
	E30 REINFORCEMENT FOR IN SITU CONCRETE REINFORCEMENT					
	Bars; high yield steel; cold worked; b.s. 4449 - 2005, including bends, hooks tying wire, distance blocks and spacers all in position as necessary;					
	Deformed Bars					
	10 mm Diameter;					
c	F20 NATURAL STONE WALLING	200	KG			
	Approved local stone work; rough chissel dressed; jointed in cement sand mortar (1:3)					
	Walls ;					
d	200 mm thick;	3	SM			
To Collection KSHS						

PROPOSED SCIENCE LABORATORY FOR MINISTRY OF EDUCATION				SOAK PIT (All Provisional)		
		Qty	Unit	Rate	KSHS	CTS
a	M20 PLASTERED /RENDERED					
	12mm thick cement/sand (1:4) water proof plaster in two coats to cover slab externally finished smooth with steel trowel;					
	External surfaces; Over					
	300 mm wide;	8	SM			
	MANHOLES					
	Inlet and outlet manholes: consisting of 100 mm thick class 20 / (20 mm) bed, 150 mm thick masonry walling in cement sand (1:3) mortar, 150 mm thick suspended cover slab reinforced with 8 mm diameter mild steel bars at 300 c/c both ways; concrete class 'Q' benching and channelling for 225 mm diameter pipe; 20 mm cement sand rendering to sides and bottoms; complete with 600 x 450 mm heavy duty cover including all necessary excavations, formwork approved filling and cart away					
	600 x 450 mm internal dimensions; 1000 mm average depth to invert level;					
b	Water tight 600 x 450 mm Heavy Duty manhole cover and frame painted on completion;	4	NO			
c	PIPES	1	NO			
	uPVC inlet and outlet pipes; 150mm					
	UPVC Pipe;					
d		31	LM			
To Collection KSHS						

		Qty	Unit	Rate	KSHS	CTS
	Collection					
	Total from Page 1					
	Total from Page 2					
	Total from Page 3					
	Total from Page 4					
Total for Bill KSHS						

ELECTRICAL WORKS

PROPOSED SCIENCE LABORATORY FOR MINISTRY OF EDUCATION		ELECTRICAL WORKS			
		Qty	Unit	Rate	KSHS CTS
	Supply install test and commission the following : ALL rates to be VAT Inclusive:				
1	9 - way Consumer unit "F" as CHINT complete with:- 10A SPN MCB - 3 no. 32A SPN MCB - 3 no. Spareway - 3no.	1	NO.		
	LIGHTING INSTALLATIONS Lighting point completely wired in 3x1.5mm ² single core PVC insulated copper cables drawn in 20mm diameter heavy gauge PVC conduits including all conduit accessories for one way switch, but excluding the luminaire and switch.	14	NO.		
3	Lamp Holder with Led bulb , Type " F8" Lamp	8	NO.		
4	Holder with Led bulb , Type " A2" Angled Lamp	2	NO.		
5	Holder with Led bulb Type "S5"	4	NO.		
6	10A plateswitch 1 gang two-way SP as MK K 4871 WHI 10A	3	NO.		
7	plateswitch 2 gang two-way SP as MK K 4872 WHI	2	NO.		
8	10A plateswitch 1 gang Intermediate SP as MK K 8879 WHI	1	NO.		
	POWER POINT INSTALLATIONS Ring Wiring in 3x2.5mm ² PVC insulated copper cable for Twin sockets as indicated in drawing per point	17	NO.		
10	Twin socket outlet plate as MK 1060 WHI	17	NO.		
11	As above but for Data as indicated in drawing per point inclusive of patress box and blanking cover	2	NO.		
12	25mm wide x 3mm thick copper tape roof link to earth Rod to	12	LM.		
13	Tape Clamp as Furse CR 105	2	NO.		
14	Copper air terminations as Furse comprising multiple inclusive of 2 metre long rods, copper stem base and with all fixing materials to the copper tape	2	NO.		
	SUB MAINS DISTRIBUTION 3core 10mm ² XLPE/SWA/PVS cable for distribution of power from the meter board to DBI in 32MM HG conduit in ground floor c/w all installation accessories	20	LM		
16	Cable glands and lugs for the above cables.	8	ITEM		
		Total for Bill KSHS			

MECHANICAL WORKS

PROPOSED SCIENCE LABORATORY FOR MINISTRY OF EDUCATION			MECHANICAL WORKS			
		Qty	Unit	Rate	KSHS	CTS
	SECTION 1: PLUMBING, DRAINAGE AND SANITARY FITTINGS INSTALLATIONS					
2	BILL NO.2: INTERNAL PLUMBING & DRAINAGE INSTALLATIONS					
2.1	Mains rising water pipes to the block and tanks interconnection					
	Supply & install PVC pipes Class Cof 12454 per ASTM D1784 compliance with ASTM D1785 cell classification as flowguard or equal and approved and Grade 1 Polyvynil Chloride compounds with a test pressure of 6 bars with connections to the PVC roof water storage tanks. Tenderers must allow in their prices for all couplings, connectors, unions, expansion loops, jointing materials etc as required in the running lengths of pipework and where necessary for piping clips, holderbats plugged and screwed, and brackets to the structural members.					
a	Straight run pipes for <u>raw and portable water</u> to the elevated tanks					
i	Ø 40mm straight run pipes	10	LM			
	Extra over pipes					
b	<u>Elbow/bend</u>					
i	Ø 40mm	10	NO.			
c	Tee fittings					
i	Ø 40mm	4	NO.			
2.2	Roof Water Storage Tanks					
a	Rotary moulded cylindrical tanks as "KEN TANK" or equal and approved with a capacity of 2300Ltrs, dimensions; Ø1700*1250(h)mm. The tank to have a Ø40mm inlet connection & Ø40mm outlet connection, Ø32mm overflow Ø25mm washout and gate valve, backnuts, lid and a Ø32mm high pressure cast brass ball valve and high pressure polypropylene plastic float.	1	NO.			
To Collection KSHS						

PROPOSED SCIENCE LABORATORY FOR MINISTRY OF EDUCATION				MECHANICAL WORKS		
		Qty	Unit	Rate	KSHS	CTS
2.3	Internal Plumbing					
	Supply, deliver, install and test water distribution pipes in to the buildings. The tenderers must allow in their prices for all couplings, unions, expansion loops, jointing materials etc. as required in the running lengths of pipework and where necessary for piping clips, holderbats plugged and screwed, and brackets to the structural members. All water distribution pipes in building to be in PPR PN20 for Cold water laid in accordance with the manufacturers instructions. Pipe work to have suitable approval certificates and in particular the following: DIN 1988 3rd Part; Technical Rules for drinking water W 328 ;Installation of pipelines for drinking water inside buildings /c DIN 18381; Installation work for gas, water, drainage systems inside building. other local / EU approvals. <u>Internal plumbing into the block</u>					
i	Vertical & Roof pipe work					
i	Ø 32mm	20	LM			
b	Horizontal pipe work					
i	Ø 32mm	20	LM			
ii	Ø 25mm	45	LM			
iii	Ø 20mm	20	LM			
c	Extra over pipes <u>Elbow/bend</u>					
i	Ø 32mm	10	NO.			
ii	Ø 25mm	25	NO.			
d	Fittings					
d.1	Tee fittings					
i	Ø 32mm	8	NO.			
ii	Ø 25mm	20	NO.			
d.2	Reducing bushes					
i	Ø 32-25 mm	10	NO.			
ii	Ø 25-20 mm	10	NO.			
d.3	Brass Threaded Adaptors					
ii	Ø 32-25 mm	5	NO.			
iii	Ø 25-20 mm	12	NO.			
e	Brass Threaded joints					
ii	Ø 32mm ditto	10	NO.			
f	<u>Control valves</u>					
i	Ø 32mm gate valve as Pegler	2	NO.			
To Collection KSHS						

PROPOSED SCIENCE LABORATORY FOR MINISTRY OF EDUCATION			MECHANICAL WORKS			
		Qty	Unit	Rate	KSHS	CTS
2.4	Internal Soil & Water drainage					
	Supply & install the following soil & waste water drainage pipework as described and shown in the drawing. All pipes and fittings shall be UPVC and PVC to BS5572:1978 and BS5750 as "Agroflow or equal & approved." All joinings and fixtures shall be in accordance with the manufacturers instructions and as described. Tenderers must allow for joinings, couplings, holderbats, reducers, clippings, spacers etc, necessary for the proper functioning of the installation when pricing					
a	Vertical discharge pipes in grey colour, heavy duty waste pipes PVC pipes class 41					
i	Ø 100mm	5	LM			
ii	Ø 50mm	5	LM			
b	Horizontal discharge pipes in Golden brown heavy duty PVC pipes class 41 as 'Key Terrain' or equal and approved					
i	Ø 100mm	15	LM			
ii	Ø 50mm	45	LM			
iii	Ø 40mm	25	LM			
iv	Ø 32mm	10	LM			
c	Extra fittings over pipes					
i	Ø 100mm Sweep bend ref 107.4.92	3	NO.			
ii	Ø 100mm single branch ref:105.4.92	1	NO.			
iii	Ø 100mm single branch variable boss ref:102.4.5	3	NO.			
iv	Ø 100mm access cap ref 136P.3	1	NO.			
v	Ø 100mm vent cowl ref:250.2	2	NO.			
vi	Ø 50mm boss connector ref:115.4	5	NO.			
vii	Ø 50mm sweep tee ref:206.2.91	15	NO.			
viii	Ø 50mm sweep bend ref: 201.2.91	15	NO.			
ix	Ø 40mm sweep tee ref:206.15.91	5	NO.			
x	Ø 40mm sweep bend ref:201.15.91	5	NO.			
xi	Ø 32mm sweep bend ref:201.125.91	5	NO.			
xii	Ø 50mm access plug ref:237.2	4	NO.			
xiii	Ø 40mm access plug ref 227.15	5	NO.			
d	Floor Traps					
i	Floor Traps ref:281.2 and all interconnecting accessories and cover grating or equal & approved	3	NO.			
To Collection KSHS						

PROPOSED SCIENCE LABORATORY FOR MINISTRY OF EDUCATION				MECHANICAL WORKS		
		Qty	Unit	Rate	KSHS	CTS
	Collection					
	Total from Page 1					
	Total from Page 2					
	Total from Page 3					
To Summary KSHS						

PROPOSED SCIENCE LABORATORY FOR MINISTRY OF EDUCATION				MECHANICAL WORKS		
		Qty	Unit	Rate	KSHS	CTS
3	BILL No.3: LABORATORY INSTALLATIONS Laboratory Sinks & Accessories All lab ware as "Vulcathene: Model; Method" or equal and approved: Note: (i) All lab fittings shall be in approved colour. (ii) The Model and Ref No. indicated is only a guide to the type and quality of fittings. (iii) Equivalent and Approved models may be acceptable (iv) The lab fittings shall be resistant to numerous acids such as alkalines, reagents and solvents. (v) The fittings will be fitted in the intergrated laboratory.					
3.1	<u>Lab Sinks</u> Size 420(l)*320(w)*215(d)mm, manufactured by injection moulded from polypropylene co-polymer resin with a self draining base. The sinks shall be mounted on top or underside of the work benches. The sinks to be complete with a 300mm long PVC flex connector, 500mm long plug & chain and isolation angle valve. Code: MS 401	9	NO.			
3.2	<u>Lab Sink Tap</u> Bench mounted swivel water tap as BSP Method Range of laboratory water fittings to meet requirements of EN200, model PN106 or equal & approved.	9	NO.			
To Summary KSHS						

PROPOSED SCIENCE LABORATORY FOR MINISTRY OF EDUCATION				MECHANICAL WORKS		
		Qty	Unit	Rate	KSHS	CTS
4	BILL No. 4: Portable Fire Extinguishers					
	Supply, install and commission the following portable fire extinguishers complete with initial discharge and mounting barckets as per Specifications All Extinguishers must be from approved manufacturers by the Fire Protection Association of Kenya.					
a	9 Litre dry powder fire extinguisher gas catridge type in metal casing and fixed to wall surface. Unit as 'Angus' ABC all purpose powder or equivalent and approved with content gauge.	1	NO.			
To Summary KSHS						

PROPOSED SCIENCE LABORATORY FOR MINISTRY OF EDUCATION					MECHANICAL WORKS	
		Qty	Unit	Rate	KSHS	CTS
	SECTION 2: BILLS OF QUANTITIES FOR LABORATORY GAS & FUME CUPBOARD					
1	BILL No.1: LP GAS PIPING, CYLIDNERS AND ACCESSORIES					
	the following L P Gas items as described:-					
1.1	LP Gas Cylinders and Accessories					
a	25 kg standard gas cylinder as supplied by local gas dealers or approved and equivalent	1	NO.			
b	<u>Extra Over gas cylinders for the following:-</u>					
b.1	Gas Cylinders Regulator					
i	Universal High pressure gas cylinder outlet regulator to suit the above cylinder	1	NO.			
b.2	Initial Gas Charge					
i	Allow for filling the gas cylinder with the initial 25kg gas charge	1	NO.			
1.4	Gas Leak Detectors					
b	Pound to Pound level Pressure Regulator for 15mm dia pipe complete with the drain.	1	NO.			
To Collection KSHS						

PROPOSED SCIENCE LABORATORY FOR MINISTRY OF EDUCATION				MECHANICAL WORKS		
		Qty	Unit	Rate	KSHS	CTS
1.8	GMS Pipework and Accessories					
	Supply, delivery and install galvanised Mild Steel tubing to BS 1387 Class "C" and fittings to BS 143 and 1256 of approved manufacture with galvanising to BS 729					
	Tenderers must allow in their pipework prices for all the couplings, connectors, joints, unions etc. as required in running lengths of pipework and also where necessary, for pipe fixing clips, holderbats plugged and screwed, and sleeves where pipe cross structural members Joints shall be made using PTFE tape or other approved material.					
a	Straight Run GMS Tubing					
i	Ø 15mm	30	LM			
ii	Ø 20mm	45	LM			
b	Extra Over GMS Pipework for the following fittings: -					
i	Ø 15mm GCI Bend	20	NO.			
ii	Ø 20mm ditto'	15	NO.			
iii	Ø 20mm Equal Tee	20	NO.			
iv	Ø 20x15mm GCI Reducer	15	NO.			
v	Ø 15mm GCI Union	10	NO.			
vi	Ø 20mm ditto'	13	NO.			
1.9	Isolating Valves					
a	Ø 15mm diameter fullway gate valves, round body type with solid gun metal wedge and non-rising stem, threads to BSP as Pegler Pattern 1070 suitable for LP Gas Installation or approved equivalent. Valve to be complete with weld adaptors as necessar	3	NO.			
To Collection KSHS						

PROPOSED SCIENCE LABORATORY FOR MINISTRY OF EDUCATION				MECHANICAL WORKS		
		Qty	Unit	Rate	KSHS	CTS
	Collection					
	Total from Page 5					
	Total from Page 6					
	Total from Page 7					
	Total from Page 8					
To Summary KSHS						

PROPOSED SCIENCE LABORATORY FOR MINISTRY OF EDUCATION				MECHANICAL WORKS		
		Qty	Unit	Rate	KSHS	CTS
2	BILL No.2: COPPER TUBING AND ACCESSORIES INSTALLATIONS					
2.1	Copper Tubing and Accessories					
	Supply, deliver and install copper tubing to BS 2871: Part 1 and capillary and compression fittings to BS 864: part 2. The tubing to be solid drawn round clean, smooth and free from defects and deleterious films in the bore. The fittings must be free from internal fins or other irregularities. compression fittings shall be Type A (non - manipulative)					
	Allow in your pipe prices for pipe supports, joints, fixing etc.					
a	Straight Run Copper Tubing					
i	Ø 6/8mm copper tubing	5	LM			
b	Extra Over GMS Pipework for the following fittings: -					
b.1	Adaptors					
i	6/8 x 15 mm diameter adaptor for joining 6/8 mm dia copper to tappings from GMS Gas Pipe	5	NO.			
iii	6/8 mm diameter Brass adaptors	7	NO.			
c	Valves					
i	10/12 mm diameter approved high pressure screw-down full way non-rising stem wedge gate valve to BS 5154 with wheel head and joints to copper tubing and compression to BS 804/2 suitable for gas installation	2	NO.			
2.2	Fume Cupboard Gas Supply					
i	Remote controlled gas control valve as Vultex Labline Ref No. VG801 703 or approved equivalent	1	NO.			
ii	Bench outlet with fixed serrated nozzle outlet as Vultex Labline Ref No. VG800 913 or approved equivalent	1	NO.			
iii	1000mm long x Ø 10mm heavy grade copper tubing and nuts	1	NO.			
2.3	Laboratory Bench Gas Supply					
i	Two way, 90 degrees drop lever gas tap as Vultex Labline Ref No. VG800 033 or approved equivalent	7	NO.			
2.4	Pressure Testing of Pipework					
	Allow for air pressure testing of Pipework after installation and before burying at 56 psi and applying a strong soapy solution to all the joints of the pipework	1	ITEM			
To Summary KSHS						

PROPOSED SCIENCE LABORATORY FOR MINISTRY OF EDUCATION					MECHANICAL WORKS	
		Qty	Unit	Rate	KSHS	CTS
3	BILL NO.3: FUME CUPBOARD AND ACCESSORIES					
3.1	Fume Cupboard Extract Fan					
	Supply, Install, test and commission fume cupboard extract radial fan capable of 0.2m³/sa system pressure drop of 330N/m². Casing of the fan to be rigid PVC, impellers moulded in phenolic resin and motor protected by sealing coat of polyurethane compound Fan to be complete with motor starters, electric control panel fixed near the fume cupboards with ON/OFF and trip lights, flexible connections, pipe tightening straps, anti-vibration mountings, and wall mounting brackets Fan to be as "KOTTERMAN LABORTECHNIK GMBH" fume cupboards fan with a power supply of 0.25kW, 240V, 50Hz running at 1400 RPM or approved equivalent.	1	NO			
3.2	Extract Ductwork					
	Supply and install 210mm diameter corrosion resistant and fire retardant Polypropylene ducting complete with supports and suitable cowl.	3	LM			
i	Holderbats for 210mm diameter pipes	2	NO.			
ii	210mm diameter Bends	2	NO			
iii	210mm diameter Ventilating Cowl	1	NO			
iv	Weathering Slate for 210mm diameter pipe	1	NO			
v	Weathering Apron for 210mm diameter Pipe	1	NO			
vi	Neoprene Fan connectors	2	NO			
3.3	Electrical Works					
	Allow for all electrical works including wiring from fume cupboards to DB switches etc.	1	ITEM			
3.4	Testing and Commissioning					
	Allow for setting to work, balancing, testing and commissioning of the entire system	1	ITEM			
To Summary KSHS						

		Qty	Unit	Rate	KSHS	CTS
1	SUMMARY PAGE					
	SECTION I : PLUMBING AND DRAINAGE INSTALLATIONS					
	a Bill No.2: Internal Plumbing & Drainage					
	b Bill No.3: Laboratory Fittings					
	c Bill No.4: Fire Fighting installations					
	SECTION II: LP GAS PIPING INSTALLATIONS					
	a Bill No.1: LP Gas Cylinders and GMS Tubing Installations					
	b Bill No.2: Copper Piping and Accessories Installations					
	c Bill No.3: Fume Cupboard Installations					
Total for Bill KSHS						

GRAND SUMMARY

PROPOSED SEEQIP SCIENCE LABORATORY

GRAND SUMMARY

ITEM	DESCRIPTION	Page No.	FOR TENDERER USE ONLY	FOR OFFICIAL USE ONLY
		PAGE	K.SHS.	K.SHS.
A	PRELIMINARIES	P/1		
B	BUILDERS WORK	BW/18		
C	SOAK PIT			
D	ELECTRICAL INSTALLATIONS			
E	MECHANICAL INSTALLATIONS			
F	SUB TOTAL 1			
G	ADD: PPRA LEVY @ 0.03%			
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.....				