



**WILDLIFE
RESEARCH
& TRAINING
INSTITUTE**

Discover Beyond

19th October 2023

REF: WRTI/OT/PPRM/40/2023-2025

TO: ALL BIDDERS

RE: ADDENDUM NO. 1

TENDER NAME: TENDER FOR PROPOSED RENOVATIONS OF LABORATORIES AND THEIR INSTALLATIONS

Following the prebid meeting held on Tuesday 17th October 2023 at 11am, WRTI wishes to make the following clarification/amendments;

1. Bid Security

The bidders are notified that the tender document shall not require a bid security of **Ksh 400,000** as advertised. However, the tenders **MUST BE** accompanied by a duly signed tender securing declaration form as prescribed

2. Bills of Quantities

The amended bills of quantities for the tender are as attached below

This addendum shall be construed to form part of the tender document.

All other conditions remain

**SUPPLY CHAIN MANAGEMENT
FOR; DIRECTOR/CEO**

BILLS OF QUANTITIES FOR RENOVATIONS OF LABORATORIES AND THEIR INSTALLATIONS

	<u>LABORATORY RENOVATIONS AND REHABILITATION</u>				
Item	Description	Qty	Unit	Rate	Amount
	Preliminaries				
	The Employer is:				
	Wildlife Research and Training Institute				
	LOCATION OF SITE				
	The site of the proposed works is at the Wildlife research and Training Institute research laboratories at Tsavo National Park, Voi, Naivasha Annex and Nairobi animal orphanage along Langat Road				
	The Contractor shall be deemed to have visited the site and satisfied himself as to:-				
	a) The nature and position 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 building				
	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.	1	ITEM		
	LABOUR CAMPS				
	The contractor shall not be allowed nor permitted to house labourers on site. Arrangements should be made to cater for the same	1	ITEM		
	WATCHING AND LIGHTING				

	The Contractor shall provide at his own risk and cost all watching as necessary to safeguard the works, plants and materials against damage and theft.	1	ITEM		
	INSURANCE				
	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:-				
	The works and temporary works erected in performance of this contract.				
	The materials on site, plant and tools				
	The cost and expense of removing debris of the property insured, destroyed or damaged by any peril insured.				
	Employer's liability (workman's compensation)				
	Third party (Public liability for an indemnity of not less than shs. 2,000,000 for any accident or series of accidents arising from the same event (unlimited in aggregate).	1	ITEM		
	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 WRTI 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. This includes all safety barriers, safety gear etc				
	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 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	1	ITEM		
	TRANSPORT TO AND FROM THE SITE				
	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.	1	ITEM		
	WATER				
	The contractor shall be allowed to use water from the institute in the works. The contractor shall provide at his own risk and cost proper connections to safely tap the water to usage point. The contractor is however mandated to provide at his own cost the drinking water for all his staff as required by OSHA				
	All water shall be fresh, clean and pure, free from earthly vegetable or organic matter, acid or alkaline substance in solution or suspension.	1	ITEM		
	Preliminary Carried to Total				-
1	TSAVO LABORATORY				
	Preparatory works				

A	Allow for removal and salvage all electrical and plumbing fittings there of and making good defects to PM's approval	1	ITEM		
B	Allow for removal, salvage of louvered windows and notice/sign board in all rooms and making good defects to PM's approval	1	ITEM		
C	Hack the floor area, Wheel, load and cart away from site debris material and deposit in approved contractor's dumping area outside the construction site	165	SM		
D	Demolish all windows and cart away	14	No		
E	Demolish doors and salvage all doors	5	No		
F	Remove all shelves in PCR room	1	Item		
G	Demolish wall between new extraction room and PCR room	3	SQM		
H	Demolish doors and salvage double doors	1	No		
I	Demolish walls to create room for new double doors	5	SQM		
J	Allow for removal of old worktops and salvage for later use including the damaged wooden cabinets	1	SQM		
	WINDOWS				
	Aluminium Windows				
	Supply assemble and fix purpose made powder coated aluminium windows with fixed 6mm clear glass panels permanent vent complete with necessary window fasteners and 2mm gauge aluminium section frames; complete with all necessary locks, hinges, draught strips, pull handles, "snap on" glazing beads; building in lugs to jambs, plugging and screwing head and cill and bedding in waterproof cement mortar and pointing in approved mastic externally, oiling, easing and adjusting				
	supply and fix new aluminium windows. Fixed windows that do not open	30	SQM		

	supply and fix new aluminium windows. Windows that open	30	SQM		
	DOORS				
	Supply and Fix solid mahogany 1.5 security door measuring 1500mm by 1700mm complete with access control programmed and cmmisioned. Cost shpuld include installation of appropriate door frames	2	Nos		
	Supply and fix solid mahogany door fixed with see through tempered glass to all internal doors measuring 2100 by 900mm. Cost should include installation of new door frames to match	5	Nos		
	Floor				
	Screed;cement and sand [1:3] in;				
G	20mm thick rendering to plinths finished ready to receive tiles	165	SM		
	Supply and fix 400 by 400 ceramic tiles non slip fixed with adhesive	249	SM		
D	Ditto skirting	50	SM		
	EQUIPMENT INSTALLATION				
	Work Benches				
	Supply and fix white water proof marble tops on iron frame welded and fixed on approved bench areas. The iron frame shall be sq. tube painted to black glossy finish and bolts affixed to the floor and to the marble top. All areas must be made good after finish	35	SQM		
	Sinks				
	Supply and fix anti rusting stainless steel sinks on the workbenches to approval of the lab scientist complete with faucet	2	No		
	Cabinets				
	Supply and fit MDF board cabinets at approved areas ditto but 1000 by 600mm complete with all fixes and accessories	70	SQM		
	ROOF				

G	Supply and fix new roofing plain chip boards 8ft by 4ft	70	SQM		
	Make good all other areas to approval of Lab scientist including main laboratory ceiling repairs	1	ITEM		
	supply and install Install aluminium heat shield	70	SQM		
	Eyewash				
	Supply and install eyewash station fixed on the worktop benches of the extraction room and Post PCR room complete with all accessories	2	Nos		
	GLASS WINDOW				
	Supply and install glass window 1500 by 1500 mm on mahogany frame between the exxtraction room and the PCR room and also between the the PCR room and Post PCR room	2	Nos		
	ELECTRICAL WORKS				
H	Allow for installation of electrical repairs, new lighting works and secure power and switch points where necessary. Convert all lights to LEDs in the laboratory to achieve 100% lighting and repair all sockets and structured cablings. All new wiring shall be include wall hacking and made good. Introduce new socket outlets in the approved areas	1	ITEM		
	PLUMBING WORKS				
	Allow a prime sum of 300,000 for the rerouting of all plumbing pipes into concealed channels of the lab building out of plane view. Repair all damages and replace worn out pipes with quality PPR pipes and accessories	1	SUM		
	PAINTING				
	Paint all areas of the laboratory and sorrounding to gloss finish after applying two coats of anti bacterial prime paint in approved colour mix by the WRTI representative in the whole laboratory	1	ITEM		
	Mobile Field sample storage				

	supply test and commission solar powered -4 to 4 degrees freezer for sample transportation as described. Attach datasheet and manufacturer authorization	2	No		
Flue Parameterizer					
	Biological Gas Detector (Measuring range: HC,CO, Nox, SO2, HC, and CO) attach datasheet and Manufacture Authourisation	1	No		
<u>TSAVO LABORATORY HVAC</u>					
Preparatory works					
A	Allow for removal and salvage all electrical and plumbing fittings there of and making good defects to PM's approval	1	ITEM		
LABORATORY HVAC					
	Supply and install 24000BTU ducted unit R410 refrigerant, 240VAC, 50Hz fitted with HEPA filters. Attach datasheet	5	No		
	Supply and install Pal sheets 8ft by 4ft to be cut and fitted in square ducts measuring 400mm by 400mm along all duct routes	100	No		
	Supply and install grills 400mm by 400mm	8	No		
	Supply and Install Exhaust grills 400mm ny 400mm	8	No		
	Supply and install Duct teperature sensor as described. Attached manufacturer datasheet and MAF	4	No		
	Supply and install Alarming and control system as described. Attach manufacturer datasheet and MAF	1	No		
	Installation Accessories to include all installation materials such as glue, cutters, sealants, wiring cables and duct insulators	1	ITEM		
	Allow a prime sum for preparation and submission of As Built drawings in three copies for the installed system	1	SUM		
TOTAL COST FOR ELEMENT 01 - TSAVO LAB					-
Item	Description	Qty	Unit	Rate	Amount
COLLECTIONS					
1	Preliminary Carried to Total				-

2	Carried to Collection page Total Cost for Tsavo Laboratory				-
SCIENCE LABORATORY1 ANNEX					
ITEM	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	Preliminary and general items	1	ITEM		
1	Allow for removal and salvage all electrical and plumbing fittings there of and making good defects to PM's approval	1	ITEM		
2	Allow for door demolition works, Wheel, load and cart away salvage from site and store as directed	1	ITEM		
3	Allow for blackboard demolition works, Wheel, load and cart away salvage from site and store as directed	1	ITEM		
4	Allow for floor tiles demolition works, Wheel, load and cart away from site debris material and deposit in approved contractor's dumping area outside the construction site	51	SM		
5	Allow for removal of wooden worktops and salvage all electrical and plumbing installations	140	SM		
	Floor Finishes				
	Screed;cement and sand [1:3] in;				
5	32mm thick rendering to floors finished to recieve tiles	51	SM		
	First grade non-slip ceramic tiles to approval; floor tiles to regular or other approved pattern; bedding and jointing in cement sand (1:4) mortar; grouting with matching cement:-				
6	400 x 400 x 6mm Thick; polished; butt joints both ways to floors level; on cement/sand base (m/s).	51	SM		
	Ditto to skirting	30	LM		
	PAINTING				
	Painting and Decoration				

	Prepare, prime and apply two finishing of silk vinyl paint on walls:				
7	General surface of plastered walls	60	SM		
	Gypsum Ceiling Painting				
8	Prepare and apply three coats roller applied pure satin emulsion paint as Crown Solo or equal and approved to Gypsum ceiling	51	SM		
	Prepare, prime and apply two undercoats and one gloss finishing coat oil paint to:				
9	General surface of doors	4	SM		
10	General surface of windows	2	SM		
	Worktops				
11	Supply and fix white marble tops on iron frame welded and fixed on approved bench areas. The iron frame shall be sq. tube painted to black glossy finish and bolts affixed to the floor and to the marble top. All areas must be made good after finish	140	SM		
	Prepare, prime and apply two undercoats and one gloss finishing coat oil paint to:				
12	General surface of steel base	5	SM		
	VERTICAL BLINDS				
14	Vertical Blinds made of glass fibre fabrics in width 5" (or 4"). Minimum overlapping of ¾" in fabric. Top aluminium anodized rail of 1.4 mm thickness. 2 inch wide channel with front lamination of same fabric. Runners having stainless steel hooks with built-in shock spring and self aligning slip clutch. End control box composed of double gear system. Stainless steel spacers. Bottom weight fully plastic covered linked with plastic bead chain.	18	LM		
	CARPENTRY WORKS-joinery and fitting				
15	Supply, Fitting & Fixing of low level Cabinet made with 18mm approved Ply Board and light Grey Matt enamel Paint Finishing with all necessary undercoatings with front cabinet door made with 18mm White TEXTURED MELAMINE BOARD including all accessories. (Height 800mm and depth 6000mm)	21	SM		
	Knot, prime, stop and spray paint to woodwork				
16	General surfaces	21	SM		

	ELECTRICAL WORKS				
17	Allow for installation of electrical and repairs, new lighting works and secure power and switch points where necessary	1	ITEM		
	PLUMBING INSTALLATIONS				
	Fresh Water Supply - From nearest water points, repositioning, repairs and reinstallion of new points				
18	Supply, deliver, install test and commission where necessary fresh water supply system using DN 25 PP-R pipes and fittings to DIN 8077-78 Standards and relevant local standards. Tenderers must allow in their pipework prices for all the couplings, connectors, joints, bypass bends, caps and pipe clips in running lengths of pipes. Jointing & installation methods shall be as per manufacturers' recommendations only.	1	ITEM		
	Supply, deliver, install, test and commission the following sanitary fittings as specified including all the necessary fittings and jointing;				
	Stainless Steel Sink Basin				
19	15 number Dasen Oliver Make or equivalent as per approval of size approx. 18inch X 24 inch or as available per approval in platform complete including all required cutting, filling, preparation for installation, connecting waste coupling, waste pipe, adhesives/ sealers/ fillers etc	15	NO		
	Sink Basin Tap				
20	Chrome plated non-conculsive time delay press action pillar tap as VADO or equal and approved.	15	NO		
	PROVISIONAL SUMS				
21	A Allow prime cost (P.C) sum of Kshs. 100,000 for the resident engineers Miscellaneous account to be spent in whole or part as directed by the resident Engineer against receipts during supervision works	1	ITEM		
22	Allow a provision of one hundred thousand for contingencies.	1	ITEM		

	Evidence Transport freezer				
	Solar powered -4 to 4 degrees freezer for evidence transportation as described. Attach datasheet and manufacturer authorization	1	No		
	TOTAL COST FOR ELEMENT 03 - ANNEX LAB				
	LABORATORY BOARDROOM				
	Prepartory works				
	Hack floor to receive tiles and cart away debris to approved location not more than 100m away	50	SM		
	Allow for uninstalation and salvage of all electrical and plumbing materials including the white board	1	ITEM		
	Allow for uninstalation of he curtain boxes and curtain rails and make good the areas	1	ITEM		
	Floor Finishes				
	Screed;cement and sand [1:3] in;				
	32mm thick rendering to floors finished to recieve tiles	50	SM		
	First grade premium granito tiles to approval; floor tiles to regular or other approved pattern; bedding and jointing in cement sand (1:4) mortar; grouting with matching cement:-				
	600 x 600 x 6mm Thick; polished; butt joints both ways to floors level; on cement/sand base (m/s).	50	SM		
	Ditto to skirting	30	LM		
	400 x 400 x 6mm Thick; polished; butt joints both ways to floors level; on cement/sand base (m/s).	52	SM		
	Ditto to skirting	8	SM		
	Roofing				
	Supply and install acoustic ceiling complete with all fixtures	50	SM		
	Window Rails and Blinds				

Vertical Blinds made of glass fibre fabrics in width 5" (or 4"). Minimum overlapping of ¾" in fabric. Top aluminium anodized rail of 1.4 mm thickness. 2 inch wide channel with front lamination of same fabric. Runners having stainless steel hooks with built-in shock spring and self aligning slip clutch. End control box composed of double gear system. Stainless steel spacers. Bottom weight fully plastic covered linked with plastic bead chain.	20	LM		
Painting				
Internal Walls				
Prepare, prime and apply two finishing of silk vinyl paint on walls:				
General surface of plastered walls	70	SM		
External Walls				
All columns, doors and beams and verandah ceiling	102	SM		
Fascia board	150	LM		
Exterior wall skirting black bituminous paint	40	SM		
Supply and install 2 lever lock such as union for the main door	1	No		
Supply and install Reclosure such as union on the main door	1	No		
ELECTRICAL WORKS				
Allow for installation of electrical and repairs, new lighting works and secure power and switch points where necessary. Introduce two new power access point at the center of room complete with four number twin access point. The contractor shall cater for the cost of chiseling and installing conduits and cables for the installation.	1	ITEM		
Supply and install 2U switch cabinet for ICT function	1	No		

	Supply and install a wireless access point as described	1	No		
	Allow a prime sum of 20,000 for installation accessories of the ICT equipent	1	SUM		
	<u>Conference Screen</u>				
	Supply, test and commission 65" touch dual OS(android and Windows) conference screen ascdescribed in attached	1	No		
	HVAC				
	Supply, install test and commission 24K BTU Air conditioner as instructed by the Engineer Installatio to include all fabrications and installation accessories	2	No		
	TOTAL COST FOR ELEMENT 04 - ANNEX LAB BOARDROOM				
	LABORATORY1 ABLUTION BLOCK				
	Hack the terrazo in readiness to receive tiles	15	SM		
	Hack and remove the existing dilapidated wall tiles	40	SM		
	Allow for removal and salvage of existing woodwork,electrical and plumbing installations	1	ITEM		
	Allow for removal of existing sanitary	1	ITEM		
	Floor				
	Floor Finishes				
	Screed;cement and sand [1:3] in;	50	SM		
	32mm thick rendering to floors finished to recieve tiles				
	First grade non slip grade ceramic tiles to approval; floor tiles to regular or other approved pattern; bedding and jointing in cement sand (1:4) mortar; grouting with matching cement:-	30	SM		
	400 x 400 x 6mm Thick; polished; butt joints both ways to floors level; on cement/sand base (m/s).	30	LM		

	Ditto to skirting	40	SM		
	ceramic wall tiles 330 x 330 x 6mm Thick; polished; butt joints both ways to floors level; on cement/sand base (m/s).	30	SM		
	Doors and Windows				
	Supply and install new 4 by 6 inch door frames in place of removed frames	3	No		
	Supply and install mahogany semi solid flush doors. This to include all installation accessories such as status locks, handles and hinges	3	No		
	Repair existing window glasses	1	Item		
	Supply and install two lever lock such as union on main entry door	1	No		
	Supply and install heavy duty door reclosure such as union	1	No		
	Plumbing				
	Fresh Water Supply - From nearest water points, repositioning, repairs and reinstallion of new points				
	Supply, deliver, install test and commission where necessary fresh water supply system using DN 25 PP-R pipes and fittings to DIN 8077-78 Standards and relevant local standards. Tenderers must allow in their pipework prices for all the couplings, connectors, joints, bypass bends, caps and pipe clips in running lengths of pipes. Jointing & installation methods shall be as per manufacturers' recommendations only.	1	ITEM		
	<u>Supply, deliver, install, test and commission the following sanitary fittings as specified including all the necessary fittings and jointing;</u>				
	<u>Water Closets</u>				

<p>Vitreous china to BS 3402, BS EN 997 and BS EN 33 wall mounted pack, including: wall-hang bowl, soft close seat & cover, fixing kit #T3332 and straight finned pattern panekta WC outlet connector #S4325 as ARMITAGE SHANKS model Chelsea or equal and approved. 2 Set complete with 20mm dia inline WC flush valve for concealed Body with possible repeated flushing, low flushing noise, Inlet pipe connection of 3/4" BSP & min 1.5 bar pressure as JAQUARiFlush #FLV-CHR-1075C All to be as IDEAL STANDARD water closet or equal and approved.</p>	3	NO		
<u>Toilet Roll Holder</u>				
<p>Fully recessed toilet roll holder in Vitreous China of size 165 x 165mm in approved colour as IDEAL STANDARD or equal and approved.</p>	3	NO		
<u>Robe Hook</u>				
<p>Chrome plated robe hook mounted with concealed screws. To be as IDEAL STANDARD or equal and approved.</p>	2	NO		
<u>Wash Hand Basin</u>				
<p>Countertop wash hand basin -Modern rectangular countertop basin 550 x 405 x 168mm or equivalent complete with associated drainage fittings including bottle traps and associated accessories. The gap between the counter and the top of the basin shall in no case exceed 5mm, silicone sealant shall be applied to the top of the basin before fixing in position so as to completely seal the gap to PM's approval</p>	2	SETS		
<u>Wash hand basin (WHB) Tap</u>				
<p>Chrome plated non-conculsive time delay press action pillar tap as VADO or equal and approved.</p>	2	NO		
<u>Mirror</u>				
<p>6mm thick polished plate glass silver backed mirror with bevelled edges, size 610 x 610mm, Plugged and screwed to wall with 4No. chrome plated dome capped screws. The mirror shall rest against a layer of 5mm thick foam.</p>	2	NO		
<u>Soap Dispenser</u>				

	Wall mounted soap dispenser with a capacity of 1.1L and in AISI 304 Stainless Steel material, having a press action soap release mechanism complete with fixing screws. Allow for initial soap supply in approved colour as IDEAL STANDARD or equal and approved.	2	NO		
	Urinals bowls and Fittings				
	2No.Ceramic urinal bowl complete with 40mm heavy duty plastic bottle trap and 40mm diameter chrome plated outlet with grating firmly fixed on the wall with chrome plated screws complete with 32mm water closet flush valve for the above water closets complete with, back entry with integral vacuum breaker, non-hold-open features and nonreturn valve, inlet control stop and wall plate comprising flush valve, bent chrome plated flush pipe and rubber pipe connector. The flush valve to be push button type; Ceramic urinal bowl divisions separating the above described urinal bowls fixed firmly on the wall. The fittings shall be as COBRA or equal and approved.	1	SET		
	Hand Driers				
	Automatic hand drier operating on an infra-red automatic sensing system with heating element safety cut-out complete with a 30 seconds safety timer in approved colour as IDEAL STANDARD or equal and approved.	2	NO		
	Painting				
	Internal Walls				
	Prepare, prime and apply two finishing of silk vinyl paint on walls:				
	General surface of plastered walls	SM	70		
	TOTAL COST FOR ELEMENT 05 - ANNEX LAB ABLUTION BLOCK				
	SCIENCE LABORATORY 2 AT ANNEX				
ITEM	DESCRIPTION				
	Preparatory Works	UNIT	QTY		

1	Allow for removal and salvage all electrical and plumbing fittings there of and making good defects to PM's approval				
2	Allow for door demolition works, Wheel, load and cart away salvage from site and store as directed	ITEM	1		
	Allow for worktop and cabinets demolition works, Wheel, load and cart away from site debris material and deposit in approved contractor's dumping area outside the construction site	ITEM	1		
3	Allow for blackboard demolition works, Wheel, load and cart away salvage from site and store as directed	ITEM	1		
4	Hack the terrazo wall areas, Wheel, load and cart away from site debris material and deposit in approved contractor's dumping area outside the construction site	ITEM	1		
5	Allow for floor tiles demolition works, Wheel, load and cart away from site debris material and deposit in approved contractor's dumping area outside the construction site	SM	40		
		SM	51		
Walling					
Smooth machine dressed quarry stone or other equal and approved walling in cement:sand (1:4)mortar:-					
Internal Walling					
	200mm thick dressed on one side natural stonewalling above general ground level laid with (1;4)cement sand mortar with hoop iron in every second course.				
	DPC	SM	8		
	Approved 200mm wide damp proof couse laid to breaking jionts with 150mm laps in cement:sand (1:3) mortar				
		LM	10		
Floor Finishes					
Screed;cement and sand [1:3] in;					
5	32mm thick rendering to floors finished to recieve tiles				

	First grade non-slip ceramic tiles to approval; floor tiles to regular or other approved pattern; bedding and jointing in cement sand (1:4) mortar; grouting with matching cement:-	SM	51		
6	400 x 400 x 6mm Thick; polished; butt joints both ways to floors level; on cement/sand base (m/s).				
	Ditto to skirting	SM	102		
		LM	60		
	Wall Finishes				
	25mm thick cement sand plaster in two coats and rough finished to receive tiles				
		sm	18		
	ceramic tiles to walls				
	300 x 330 x 6mm Thick; polished; butt joints both ways to walls of wet areas ; on cement/sand base (m/s).sand including all binding strips and boarder tiles				
		SM	40		
	PAINTING				
	Painting and Decoration				
	Prepare, prime and apply two finishing of silk vinyl paint on walls:				
7	General surface of walls				
	Ceiling Painting	SM	20		
8	Prepare and apply three coats roller applied pure satin emulsion paint as Crown Solo or equal and approved to Gypsum ceiling				
	Prepare, prime and apply two undercoats and one gloss finishing coat oil paint to:	SM	51		
9	General surface of doors				
10	General surface of windows	SM	4		
		SM	2		
	Worktops				
11	Concrete works				
	Vibrated reinforced concrete (1:2:4) class 20/20mm in:				
	100mm thick mass concrete plinth	CM	2		
	Sawn Formwork				
	Sawn formwork to edges of plinth	LM	86		

	25mm thick cement and sand (1:4) rough trowelled to plinth to receive granite	SM	22.4		
	High Tensile Reinforcement Bars to B.S 4461 including cutting, Bending and all necessary Spacer Blocks: (provisional)				
	10mm diameter bar	KG	80		
	Marble in desired colours as supplied by "Athi River mining" or other equal and approved by the PM				
	600mm wide x 20mm thick polished granite worktop with rounded edges fixed polished; levelled on cement/sand base (m/s).	LM	24		
	VERTICAL BLINDS				
14	Vertical Blinds made of glass fibre fabrics in width 5" (or 4"). Minimum overlapping of ¾" in fabric. Top aluminium anodized rail of 1.4 mm thickness. 2 inch wide channel with front lamination of same fabric. Runners having stainless steel hooks with built-in shock spring and self aligning slip clutch. End control box composed of double gear system. Stainless steel spacers. Bottom weight fully plastic covered linked with plastic bead chain.				
		LM	17		
	CARPENTRY WORKS-joinery and fitting				
15	Supply, Fitting & Fixing of top level Cabinet made with 18mm approved Ply Board and light Grey Matt enamel Paint Finishing with all necessary undercoatings with front cabinet door made with 18mm White TEXTURED MELAMINE BOARD including all accessories. (Height 800mm and depth 6000mm)	SM	21		
16	Supply, Fitting & Fixing of bottom level Cabinet made with 18mm approved Ply Board and light Grey Matt enamel Paint Finishing with all necessary undercoatings with front cabinet door made with 18mm White TEXTURED MELAMINE BOARD including all accessories. (Height 800mm and depth 6000mm)	SM	4		
	Knot, prime, stop and spray paint to woodwork				
17	General surfaces	SM	21		
	ELECTRICAL WORKS				
18	Allow for installation of electrical and repairs, new lighting works and secure power and switch points where necessary	ITEM	1		

	PLUMBING INSTALLATIONS				
	Fresh Water Supply - From nearest water points, repositioning, repairs and reinstallion of new points				
19	Supply, deliver, install test and commission where necessary fresh water supply system using DN 25 PP-R pipes and fittings to DIN 8077-78 Standards and relevant local standards. Tenderers must allow in their pipework prices for all the couplings, connectors, joints, bypass bends, caps and pipe clips in running lengths of pipes. Jointing & installation methods shall be as per manufacturers' recommendations only.	ITEM	1		
	Supply, deliver, install, test and commission the following sanitary fittings as specified including all the necessary fittings and jointing;				
	Stainless Steel Sink Basin				
20	15 number Dasen Oliver Make or equivalent as per approval of size approx. 18inch X 24 inch or as available per approval in platform complete including all required cutting, filling, preparation for installation, connecting waste coupling, waste pipe, adhesives/ sealers/ fillers etc	NO	8		
	Sink Basin Tap				
21	Chrome plated non-conculsive time delay press action pillar tap as VADO or equal and approved.	NO	8		
	PROVISIONAL SUMS				
22	A Allow prime cost (P.C) sum of Kshs. 70,000 for the resident engineers Miscelleneous account to be spent in whole or part as directed by the resident Engineer against receipts during supervision works	P.C	SUM		
	Carried to Collection page Total Cost for Science Laboratory 2				
	Science Laboratory 2 Ablution Block				
	Hack the terrazo in readiness to receive tiles	15	SM		
	Hack and remove the existing dilapidated wall tiles	40	SM		
	Allow for removal and salvage of existing woodwork,electrical and plumbing installations	1	SUM		
	Allow for removal of exisisting sanitary	1	ITEM		

	Floor				
	Floor Finishes				
	Screed; cement and sand [1:3] in;	50	SM		
	32mm thick rendering to floors finished to receive tiles				
	First grade non slip grade ceramic tiles to approval; floor tiles to regular or other approved pattern; bedding and jointing in cement sand (1:4) mortar; grouting with matching cement:-	30	SM		
	400 x 400 x 6mm Thick; polished; butt joints both ways to floors level; on cement/sand base (m/s).	30	LM		
	Ditto to skirting	40	SM		
	ceramic wall tiles 330 x 330 x 6mm Thick; polished; butt joints both ways to floors level; on cement/sand base (m/s).	30	SM		
	Doors and Windows				
	Supply and install new 4 by 6 inch door frames in place of removed frames	3	No		
	Supply and install mahogany semi solid flush doors. This to include all installation accessories such as status locks, handles and hinges	3	No		
	Repair existing window glasses	1	No		
	Supply and install two lever lock such as union on main entry door	1	No		
	Supply and install heavy duty door reclosure such as union	1	No		
	Plumbing				
	Fresh Water Supply - From nearest water points, repositioning, repairs and reinstallion of new points				

<p>Supply, deliver, install test and commission where necessary fresh water supply system using DN 25 PP-R pipes and fittings to DIN 8077-78 Standards and relevant local standards. Tenderers must allow in their pipework prices for all the couplings, connectors, joints, bypass bends, caps and pipe clips in running lengths of pipes. Jointing & installation methods shall be as per manufacturers' recommendations only.</p>	1	ITEM		
<p><u>Supply, deliver, install, test and commission the following sanitary fittings as specified including all the necessary fittings and jointing:</u></p>				
<p><u>Water Closets</u></p>				
<p>Vitreous china to BS 3402, BS EN 997 and BS EN 33 wall mounted pack, including: wall-hang bowl, soft close seat & cover, fixing kit #T3332 and straight finned pattern panekta WC outlet connector #S4325 as ARMITAGE SHANKS model Chelsea or equal and approved. 2 Set complete with 20mm dia inline WC flush valve for concealed Body with possible repeated flushing, low flushing noise, Inlet pipe connection of 3/4" BSP & min 1.5 bar pressure as JAQUARI Flush #FLV-CHR-1075C All to be as IDEAL STANDARD water closet or equal and approved.</p>	3	NO		
<p><u>Toilet Roll Holder</u></p>				
<p>Fully recessed toilet roll holder in Vitreous China of size 165 x 165mm in approved colour as IDEAL STANDARD or equal and approved.</p>	3	NO		
<p><u>Robe Hook</u></p>				
<p>Chrome plated robe hook mounted with concealed screws. To be as IDEAL STANDARD or equal and approved.</p>	2	NO		
<p><u>Wash Hand Basin</u></p>				
<p>Countertop wash hand basin -Modern rectangular countertop basin 550 x 405 x 168mm or equivalent complete with associated drainage fittings including bottle traps and associated accessories. The gap between the counter and the top of the basin shall in no case exceed 5mm, silicone sealant shall be applied to the top of the basin before fixing in position so as to completely seal the gap to PM's approval</p>	2	SETS		
<p><u>Wash hand basin (WHB) Tap</u></p>				

	Chrome plated non-conculsive time delay press action pillar tap as VADO or equal and approved.	2	NO		
	Mirror				
	6mm thick polished plate glass silver backed mirror with bevelled edges, size 610 x 610mm, Plugged and screwed to wall with 4No. chrome plated dome capped screws. The mirror shall rest against a layer of 5mm thick foam.	2	NO		
	Soap Dispenser				
	Wall mounted soap dispenser with a capacity of 1.1L and in AISI 304 Stainless Steel material, having a press action soap release mechanism complete with fixing screws. Allow for initial soap supply in approved colour as IDEAL STANDARD or equal and approved.	2	NO		
	Urinals bowls and Fittings				
	2No. Ceramic urinal bowl complete with 40mm heavy duty plastic bottle trap and 40mm diameter chrome plated outlet with grating firmly fixed on the wall with chrome plated screws complete with 32mm water closet flush valve for the above water closets complete with, back entry with integral vacuum breaker, non-hold-open features and nonreturn valve, inlet control stop and wall plate comprising flush valve, bent chrome plated flush pipe and rubber pipe connector. The flush valve to be push button type; Ceramic urinal bowl divisions separating the above described urinal bowls fixed firmly on the wall. The fittings shall be as COBRA or equal and approved.	1	SET		
	Hand Driers				
	Automatic hand drier operating on an infra-red automatic sensing system with heating element safety cut-out complete with a 30 seconds safety timer in approved colour as IDEAL STANDARD or equal and approved.	2	NO		
	Painting				
	Internal Walls				
	Prepare, prime and apply two finishing of silk vinyl paint on walls:				
	General surface of plastered walls	SM	70		

	Carried to Collection page Total Cost for Science Laboratory 2 Ablution block				
	SUMMARY				
	Preliminary Carried to Total				
	Carried to Collection page Total Cost for Tsavo Laboratory				
	TOTAL COST FOR ELEMENT 03 - ANNEX LAB				
	TOTAL COST FOR ELEMENT 04 - ANNEX LAB BOARDROOM				
	TOTAL COST FOR ELEMENT 05 - ANNEX LAB ABLUTION BLOCK				
	Carried to Collection page Total Cost for Science Laboratory 2				
	Carried to Collection page Total Cost for Science Laboratory 2 Ablution block				
	SUM				
	16% VAT				
	TOTAL				
	Add 10% contingency				
	Grand Total				