

Tabled on 12/14/2023  
at 2.30 pm

JCB  
2/20  
12/14/23



COUNTY GOVERNMENT OF BUNGOMA



## THE COUNTY ASSEMBLY

### THIRD ASSEMBLY – (FIRST SESSION)

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### COMMITTEE ON LANDS, URBAN, PHYSICAL PLANNING, HOUSING AND MUNICIPALITIES

#### REPORT ON

### STATUS OF THE LAND REGISTRY, GEOGRAPHICAL INFORMATION SYSTEM LABORATORY AND THE SPATIAL PLANS IN THE COUNTY

## TABLE OF CONTENTS

List of Abbreviations.....	3
CHAPTER ONE.....	4
1.0 Preface .....	4
1.1 EXECUTIVE SUMMARY .....	5
1.2 TERMS OF REFERENCE.....	6
1.3 MANDATE OF THE COMMITTEE .....	7
1. 4 COMMITTEE MEMBERSHIP .....	8
1.5 ACKNOWLEDGMENT.....	9
CHAPTER TWO.....	10
2.0 POLICY DOCUMENTS .....	10
2.1 THE CONSTITUTION OF KENYA.....	10
2.3 INSTITUTIONAL FRAMEWORK.....	11
2.4 METHODOLOGY.....	12
CHAPTER THREE.....	13
3.0 STATUS OF GIS LABORATORY, SPATIAL PLANS AND LANDS REGISTRY IN THE COUNTY .....	13
3.1 GEOGRAPHICAL INFORMATION SYSTEM (GIS).....	13
3.2 ESTABLISHMENT OF LAND REGISTRY IN BUNGOMA COUNTY .....	16
3.3 THE TECHNICAL STAFF TRAINED TO WORK IN THE GIS OFFICE.....	18
CHAPTER FOUR.....	19
COMMITTEE GENERAL OBSERVATIONS .....	19
COMMITTEE RECOMMENDATIONS .....	20
ADOPTION SCHEDEULE.....	21

## **List of Abbreviations**

<b>CECM:</b>	County Executive Committee Member
<b>CGA:</b>	County Government Act
<b>CIDP:</b>	County Integrated Development Plan
<b>COG:</b>	Council of Governors
<b>CSP:</b>	County Spatial Plan
<b>GIS:</b>	Geographical Information System
<b>GPS:</b>	Global Positioning System
<b>LAN:</b>	Local Area Network
<b>LPDP:</b>	Local Physical Development Plan
<b>LSP:</b>	Local Spatial Plan
<b>MTPS:</b>	Medium Term Plans
<b>NSP:</b>	National Spatial Plan
<b>PPA:</b>	Physical Planning Act
<b>RPDP:</b>	Regional Physical Development Plan
<b>RSP:</b>	Regional Spatial Plan
<b>UACA:</b>	Urban Areas and Cities Act
<b>UN:</b>	United Nations
<b>GNSS:</b>	Global Navigation Satellite System
<b>MGIS:</b>	Master of Geographic Information System
<b>PLUPA:</b>	Physical and Land Use Planning Act

## **CHAPTER ONE**

### **1.0 Preface**

In the FY 2018/2019, the department of Lands, Urban, Physical Planing, Housing and Municipalities implemented the Geographical Information System(GIS) at a cost of Ksh. 17, 983, 952 for the installation of various equipment which comprises 5 tripod stands, 1 printer, 5 laptops, 2 hard disks, 2 desktop computers, 5 Uninterrupted Power Supply(UPS), 3 non ammonia printers, 3 in 1 plotter, 2 ammonia blue printers, 3 Geographical Positioning System(GPS), batteries, and a projector.

After the County Assembly approved the delineation of Bungoma and Kimilili Municipalities as well as Webuye and Chwele as Urban Areas in 2021, the County department initiated the process of having these boundaries in a Geographical Information System (GIS) data base and to demarcate it to acceptable Survey standards with a view to developing maps that can aid in documentation/registration of the land and boundaries in the County. The County Assembly approved the county Spatial plan in 2021. It was prepared at a cost of Ksh. 45, 000,000.

It is upon this background that the committee decided to assess the status of the Land Registry, Geographical Information System Laboratory and the Spatial Plans in the county.

## **1.1 EXECUTIVE SUMMARY**

Spatial planning is a key instrument for establishing long-term, sustainable frameworks for social, territorial and economic development both within and between countries. Its primary role is to enhance the integration between sectors such as housing, transport, energy and industry, and to improve national and local systems of urban and rural development, also taking into account environmental considerations.

The Spatial Plan is a ten-year GIS-based depiction of a county's socio-economic development vision and program, including the distribution of people and activities, within the context of efficient, productive and sustainable use of land and other County spaces. It is reviewed and updated every five years in order to inform the new CIDP. It aims to create a more rational territorial organization of land uses and the linkages between them, to balance demands for development with the need to protect the environment and to achieve social and economic objectives.

Further to note is that Spatial planning also aims to:

- a) Promote territorial cohesion through a more balanced social and economic development of regions, and improved competitiveness;
- b) Encourage development generated by urban functions and improve the relationship between the town and countryside;
- c) Promote more balanced accessibility;
- d) Develop access to information and knowledge;
- e) Reduce environmental damage;
- f) Enhance and protect natural resources and natural heritage;
- g) Enhance cultural heritage as a factor for development;
- h) Develop energy resources while maintaining safety;
- i) Encourage high-quality, sustainable tourism;
- j) Limit the impact of natural disasters.

## **Geographical Information System (GIS) and Spatial Plans in urban planning**

Spatial planning must operate in conjunction with land registration, since it involves measures that create new subdivisions of the land and new patterns of land use. Failure to identify existing patterns and rights of ownership frequently leads to delays or even failure in development programmes, especially in urban areas. There must be legally defined procedures for the compulsory acquisition and reallocation of land rights, as well as appeals mechanisms that will ensure public confidence that the security of their titles can be upheld.

GIS in urban planning enables spatial analysis and modeling, which can contribute to a variety of important urban planning tasks. These tasks include site selection, land suitability analysis, land use and transport modeling, the identification of planning action areas, and impact assessments.

### **1.2 TERMS OF REFERENCE**

The committee was guided by the following terms in carrying out the exercise:

1. The financial year of the GIS and the cost of construction as approved by the County Assembly.
2. To establish the cost and current status of the Spatial plan.
3. The cost of construction and current level of completion of the GIS Laboratory.
4. To assess the status of the land registry in the County
5. To identify the Challenges the ministry is facing by the presence or lack of the GIS laboratory in the County.
6. To establish the preparedness in terms of trained staff to handle the GIS laboratory.

### **1.3 MANDATE OF THE COMMITTEE**

#### **Mr. Speaker Sir.**

The Sectoral Committee on Lands, Urban, Physical Planning, Housing and Municipalities derives its mandate from the provisions of Standing Order 217(5) of the Bungoma County Assembly Standing Orders which defines its functions as to:

- a) Investigate, inquire into, and report on all matters relating to the mandate, management, activities, administration, operations, coordination, control and monitoring of budget;
- b) Consider quarterly reports of the assigned departments and report to the House within twenty-one (21) sitting days upon being laid;
- c) Study the programme and policy objectives of departments and the effectiveness of the implementation;
- d) Study and review all county legislation referred to it;
- e) Study, access and analyze the relative success of the departments as measured by the results obtained as compared with their stated objectives;
- f) Investigate and inquire into all matters relating to the assigned departments as they may deem necessary, and as may be referred to them by the County Assembly;
- g) To vet and report on all appointments where the constitution or any law requires the House to approve, except those under *Standing Order 204* (Committee on Appointments); and
- h) Make reports and recommendations to the House as often as possible, including recommendation of proposed legislation.

## **1. 4 COMMITTEE MEMBERSHIP**

### **Mr. Speaker Sir.**

The current composition of the Committee on Lands, Urban, physical Planning, Housing and Municipalities is as follows:

1.	Hon. Francis	Chemion	Chairperson
2.	Hon. Linda	Kharakha	Vice/Chairperson
3.	Hon. Ali	Machani	Member
4.	Hon. James	Barasa	Member
5.	Hon. Vitalis	Wangila	Member
6.	Hon. Sudi	Busolo	Member
7.	Hon. Hentry	Nyongesa	Member
8.	Hon. Eunice	Kirui	Member
9.	Hon. Edwin	Opwora	Member
10.	Hon. Wafula	Waiti	Member
11.	Hon. Mildred	Barasa	Member
12.	Hon. Everlyne	Anyango	Member
13.	Hon. Cornelius	Makhanu	Member
14.	Hon. Timothy	Chikati	Member
15.	Hon. Johnston	Ipara	Member

## **1.5 ACKNOWLEDGMENT**

**Mr. Speaker Sir.**

The Committee extends its appreciation to the Offices of the Speaker and the Clerk of the County Assembly for the support accorded to it in the execution of it's mandate and the opportunity accorded to the Members to undertake the fact finding and the report writing there after.

I also wish to extend my uttermost gratitude to the Members of the Committee who dedicated their time out of their busy schedule to ensure that the objectives of this exercise were achieved.

More so, the secretariat of the committee is commented for the timely procedural advice accorded to the Hon. Members during the exercise.

It is therefore my pleasant duty and privilege, on behalf of the committee on Lands, Urban, Physical Planning, Housing and Municipalities to table this report for consideration and subsequent adoption by this honorable House.

**SIGNED** *Chair*  **DATE** 12/14/2023

**HON. FRANCIS MASAI CHEMION, MCA- KAPTAMA WARD**

**CHAIRPERSON, LANDS, URBAN, PHYSICAL PLANNING AND HOUSING**

## **CHAPTER TWO**

### **2.0 POLICY DOCUMENTS**

**Mr. Speaker Sir**, the committee was guided by the following policy documents in writing this report:

**Sessional Paper No. 3 of 2009 on National Land Policy**; stipulates the principles and values that govern regulation of land use and empower all planning authorities to regulate the use of land in public interest.

**National Urban Development Policy, 2016**. This aims to create sustainable urban development in the country by strengthening governance, planning, urban investment and delivery of social and physical infrastructure.

**Sessional Paper No. 1 of 2017 on National Land Use Policy**. The Policy provides legal, administrative, institutional and technological framework for optimal utilization and productivity of land related resources in a sustainable and desirable manner at national, county and community levels.

### **2.1 THE CONSTITUTION OF KENYA**

The committee was further informed on matters law by Chapter Five of the Constitution which is on Land & Environment:

**Article 60** which stipulates that land shall be held, used and managed in an equitable, efficient, productive and sustainable manner. The Fourth Schedule on Distribution of Functions between National and the county governments.

**Article 66** which grants powers to the State to regulate the use of any land or any interest in or rights over any land, in the interest of defense, public safety, public order, public morality, public health, or land use planning.

**Section 21 of Part I the Fourth Schedule** which touches on General principles of planning and the coordination of planning by counties

**Section 8 of Part II of the Fourth Schedule** that talks about planning and development

### **2.3 INSTITUTIONAL FRAMEWORK**

**Land Act 2012** The Act Provides for administration of land and land based resources. The Act has provided for management of land based approved physical & land use development; Sec. 8, 18(3), 20(1), 34(1)(b), 134(6)

**Land Registration Act, 2012.** The Act provides for revision, consolidation and rationalization of registration of titles to land. The Act provides for indication of the use of land in the Land Register – Sec. 8&9 read with Reg. 9 of General Regulations.

Regulation 43 further provides that a scheme of amalgamation (combination) or subdivision shall be accompanied by an approval of development application by the relevant County Government and a copy of registered Mutation Form. Certification of the Mutation Form maybe by various professionals including a Licensed Physical Planner

**County Governments Act, 2012.** The Act provides for Administration of County Governments. It specifically provides for county governments' powers, functions and responsibilities to deliver services. Part 11 of the Act provides for planning and development in the county. Section 110 provides for preparation of County Spatial Plans

**Urban Areas and Cities (Amendment) Act, 2011(Revised 2019);** The Act provides for classification, governance and management of urban areas and cities.

Section 20(1)(d) of the Act provides for enforcement of land use, subdivision or zoning by the Boards in line with the spatial and master plans for the city or municipality as may be delegated by the county government

**Survey Act, Cap 299 (currently under review);** The Act provides for surveys, geographical names and the licensing of land surveyors. The Survey Department supports Physical and Land Use Planning Act (PLUPA) at the implementation stage by preparation of survey plans. The practice of surveys in the case of approval plans for

public requires the authentication of the Part Development Plans (PDP) by the Director of Physical Planning

**The Physical and Land Use Planning Act No. 13 of 2019 (PLUPA);** this is the principal law on physical and land use planning and defines the function, procedure, matters, tools and the institutions in charge of physical and land use development.

**Environmental Management and Coordination Act, 1999 (Revised in 2015)**  
It provides for establishment legal and institutional framework for management of the environment. The Act provides for preparation of Environmental Impact Assessment Reports, which are complementary tools in the approval of P&LU Developments

**The Land Value (Amendment) Act, 2019.** The Act amended the Land Act, the Land Registration Act and the Prevention, Protection and Assistance to Internally Displaced Persons and Affected Communities Act to provide for the assessment of land value index in respect of compulsory acquisition of land;

## **2.4 METHODOLOGY**

### **Mr. Speaker Sir.**

In the execution of its mandate, the committee on Lands, Urban, Physical Planning, Housing and Municipalities wrote to the executive department on Lands for a status report on the spatial plan, GIS laboratory and the land registry in the County. The aim was to assess the viability and value for money.

The committee also paid a visit to the department on a fact-finding mission over the GIS laboratory and the land registry in the County.

## **PHASE 1: Collection of data.**

The very first stage of actualizing the establishment of a GIS Laboratory is data collection. Data is the most important component of a GIS. Spatial data can be in the form of a map/remotely-sensed data such as satellite imagery and aerial photography. These data forms must be properly geo-referenced (latitude/longitude). Tabular data can be in the form attribute data that is in some way related to spatial data.

## **PHASE 2: Configuration of the System**

This phase involves the networking of data. The networking involves GIS software. GIS software provides the functions and tools needed to store, analyze, and display geographic information.

### **Key GIS software components include;**

- (a) a database management system (DBMS)
- (b) tools for the input and manipulation of geographic information
- (c) tools that support geographic query, analysis, and visualization
- (d) a graphical user interface (GUI) for easy access to tools.

## **PHASE 3: Decentralization of the system**

The GIS system that is being established in the County will be domiciled in the lands department, however, the system is meant to benefit all ministries in the County. All development projects are done on land and therefore this phase will seek to give administrative rights to other departments to feed in information regarding their development projects ranging from; the nature of the project, contractor awarded the tender, timelines for the project, the number of people likely to be affected or benefit from the project among others. The information will be verified by the lands department through the available machinery and software since the mappers have an inbuilt satellite system. This phase will only be actualized when phase 2 is completed.

## **PHASE 4: Dissemination of information**

This is the last phase of GIS establishment. In this phase, the information is made available to any owner of land in Bungoma County. The system access will be limited to residents of Bungoma who own parcels of land since parcel number will be required for one to log in the system.

GIS technology is of limited value without the users who manage the system and to develop plans for applying it. GIS users range from technical specialists who design and maintain the system to those who use it to help them do their everyday work.

### **Committee findings upon site visit**

**Mr. Speaker Sir**, when the committee visited the County Survey offices where the GIS laboratory is located, it was found that:

1. The implementation of the GIS laboratory is highly dependant on the establishment of the land registry which is currently being done manually.
2. The survey equipment were delivered and are in the office. They had 6 mobile mappers out of 9 required and 4 receivers out of the required 9.
3. Most of the equipment bought are packed due to lack of assembling space. But some of the equipment are in use by officers to set up the laboratory and they include laptops and desktop computers.
4. The department lacks enough staff with technical know-how to collect and handle data for geo-referencing.
5. The lands office is housed in a very congested office space exposing the document to a high risk of loss and theft.
6. The office lacks cabling and networking system to enable setting up of the GIS laboratory.
7. The software acquired have never been upgraded although they are supposed to be upgraded annually.

### **3.2 ESTABLISHMENT OF LAND REGISTRY IN BUNGOMA COUNTY**

#### **Departmental submissions**

**Mr. Speaker Sir**, the department submitted that there is only one Central Land Registry in the county located within the County Commissioner's Government Offices. That until 2018, the Bungoma County Registry Index Maps, Preliminary Index Diagrams, mutation forms and Index Cards were in custody of the Western Region Survey Office at Kakamega in Kakamega County. The Bungoma County Survey office wrote to the national director of surveys requesting to have these records transferred to their jurisdiction. This initiative was to ease the cost of land transactions and to reduce land related conflicts in the County.

Since documents relating to land are highly sensitive, the department had to meet the necessary requirements to qualify to be able to have a land registry in Bungoma among them being;

- i. Establishment of a room suitable for chatting, Stenciling and checking of maps
- ii. Establishment of a room for installation of a Dyeline Printing machine and a plan printer
- iii. A rocked-up room suitable for the storage of mutation forms and a room for storage of Primary Index Diagrams and Registry Index Maps
- iv. A1 vertical map cabinets

In 2018, Bungoma County was given a green light to establish a Land registry office. This marked a very important step in the development of GIS. Today, all data on land in Bungoma County is under the custody of Bungoma Land Registry.

The establishment of the Land Registry in Bungoma came with advantages including but not limited to:

- Reducing the cost of transactions of land
- Relieving the citizens of Bungoma from travelling to Kakamega to solve matters associated with land.
- Quick solving of land disputes hence reduction in land related conflicts.

To be able to digitalize the data and do necessary referencing for the data to be useful, the department of Lands has acquired vital tools that have helped them to capture real time data and is in the process of updating the data in the system. Among the equipment bought to facilitate the process include:

- i. GPS Real Time Kinematic GNSS (global navigation satellite system)
- ii. 6 Mobile mappers
- iii. 4 T20 MGIS receivers (master of geographic information system)
- iv. 5 hard disks

The most important steps being taken include:

1. Registration/adjudication of land register: the department in the process of land registration, is focused on boundaries and parcel numbers. This will help the department in identifying the registered owners of land and also help in identifying public land.
2. Geo-referencing: this is a type of coordinate transformation that binds digital vector database that represents geographic space to a spatial reference system hence locating digital data in the real world. It is the placement of attributes to parcel numbers through scanned data.

### **Committee observations upon site visit**

1. The maps that were acquired from Kakamega have not been scanned to enable geo-referencing.
2. The department is yet to acquire data in all the 9 sub counties to enable it embark on marking on specific attributes.

### **3.3 THE TECHNICAL STAFF TRAINED TO WORK IN THE GIS OFFICE**

**Mr. Speaker Sir**, the department submitted that there are no trained GIS officers to work in the GIS laboratory. That currently, the office relies on surveyors and cartographers who are helping in operationalizing GIS and GIS related issues.

The lack of technical staff to work in the GIS and in general survey office, dictates the need to have:

1. Three GIS officers for data digitization and manipulation.
2. Seven surveyors in addition to the existing three to have one per Sub-County for prompt and accurate data collection.
3. Four data clerks for data cleaning and data entry.
4. Two IT officers as GIS System operators.
5. Expansion of office space- by Renovation of the existing Survey office or Building a New office block to accommodate Surveying activities and GIS laboratory.

## **CHAPTER FOUR**

### **COMMITTEE GENERAL OBSERVATIONS**

**Mr. Speaker Sir**, the committee makes the following general observations:

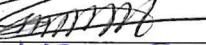
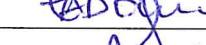
1. The land registry is operational in Bungoma with all data concerning land in Bungoma County officially being managed by the County.
2. The current County GIS laboratory was initiated in the financial year 2018/19.
3. The department has an allocation of Ksh. 3,000,000 this financial year 2022/23 to do networking of the Laboratory yet a fully operational GIS Laboratory requires a budget of at least Ksh. 80,000,000.
4. The ministry has made efforts to purchase equipment to support the establishment of GIS laboratory.
5. The ministry purchased equipment but it can not put it to full use due to lack of experts and office space.
6. The department does not have any trained staff to handle the GIS laboratory even though it is making steps towards establishment of the GIS laboratory.
7. Lack of a fully functional GIS laboratory places the County at a risk of losing or encroachment on public land. It also becomes difficult for the County Executive and legislative body to track land developments in the County. This might lead to inequitable distribution of County resources and implementation of priority projects.
8. There is poor land use and misplaced priorities on land and land development due to non-implementation of the approved County Spatial plan occasioned by the low budgetary allocation to the department.
9. There is lack of knowledge from members of the public on matters related to land issues.

## COMMITTEE RECOMMENDATIONS

1. **THAT** the department should come up with a Geographical Information System (GIS) policy guidelines highlighting priority areas in the establishment of the GIS laboratory and the same should be shared with the relevant committee within 30 days upon adoption of this report.
2. **THAT** the department should factor employment of staff in the subsequent budget,(FY 2023/2024 budget) to help it effectively carry out its mandate as far as the land registry and the GIS laboratory is concerned.
3. **THAT** the department should prioritize the construction of a GIS laboratory or secure space to house the GIS equipment in its possession to help fast track its installation. These considerations should be shared with the committee within 90 days from the adoption of this report.
4. **THAT** there is an urgent need to capacity build the current staff to manage the GIS system and equipment to avoid manual techniques being used to handle the geographical data which has high risk of data loss, delay in decision making, and costly data generation done on need basis.
5. **THAT** there is need to carry out land clinics to create awareness on matters related to land acquisition and use.
6. **THAT** the department should come up with policy guidelines on implementation of the approved County Spatial plan that will enable budget appropriation and allocation.
7. **THAT** the department needs an additional allocation of Ksh. 80,000,000 to fully operationalise the GIS laboratory which includes construction of the office block for the laboratory.

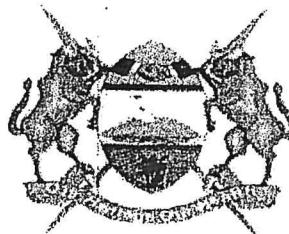
## ADOPTION SCHEDULE

We the undersigned members of the Sectoral Committee on Lands, Urban, Physical Planning, Housing and Municipalities affix our signatures adopting this report with the recommendations therein.

	NAME	DESIGNATION	SIGNATURE
1.	Hon. Francis Chemion	Chairperson	
2.	Hon. Linda Kharakha	Vice/Chairperson	
3.	Hon. Ali Machani	Member	
4.	Hon. James Barasa	Member	
5.	Hon. Vitalis Wangila	Member	
6.	Hon. Sudi Busolo	Member	
7.	Hon. Hentry Nyongesa	Member	
8.	Hon. Eunice Kirui	Member	
9.	Hon. Edwin Opwora	Member	
10.	Hon. Wafula Waiti	Member	
11.	Hon. Mildred Barasa	Member	
12.	Hon. Everlyne Anyango	Member	
13.	Hon. Cornelius Makhanu	Member	
14.	Hon. Timothy Chikati	Member	
15.	Hon. Johnston Ipara	Member	

## **ANNEXURES**

# COUNTY GOVERNMENT OF BUNGOMA



## OFFICE OF THE COUNTY EXECUTIVE MEMBER MINISTRY OF TRADE, LANDS, URBAN/ PHYSICAL PLANNING, ENERGY & INDUSTRIALIZATION

REF: BUN/CGB/REQUI /20

County Survey Office  
P.O. Box 65 - 50200  
BUNGOMA  
26<sup>TH</sup> JULY 2018

To: Chief Officer-Land, Urban/Physical Planning  
From: Assistant Director-Surveys.

### REF: SURVEY EQUIPMENT SPECIFICATIONS.

I refer you to development project estimates for 2018-2019 financial year where by the allocation for Purchase of Survey Equipment is Ksh 3,230,000.

Kindly facilitate acquisition of below listed Survey Equipment through the open tender method of Procurement as per advise from Director Supply Chain Management through letter referenced CG/BGM/SCM/GEN/VOL.IV/178.

S/NO	EQUIPMENT	Specifications	Cost Estimates(Ksh)
1.	4 PCS T20 MGIS SYSTEM RECEIVERS AND ACCESSORIES (Epson colour printer (A3), 5Laptops, 1 Desktop computer, 5Flash Disk, 5Hard disks, and 10 Anti-viruses).	<ul style="list-style-type: none"><li>❖ GIS RECEIVERS of 120 channels, GPS, GLONASS, Galileo, Compass, SBAS. L1,L1 C/A,L2,L2C Receiver type with 1.2 m, SBAS &lt;0.6 m, DGPS &lt;0.4 m and RTK H 1 cm + 1 ppm (RMS) RTK accuracy RTK V 2 cm + 1 ppm (RMS) RTK accuracy.</li><li>❖ Laptop 17.3 Inch Screen size, Intel Core i7 Processor, speed 2.8 GHz, 3.8Ghz,16GB RAM</li><li>❖ Desktop with processor type COREi7, processing Speed 3.4GHz, memory 16GB and memory scalability of 512GB</li><li>❖ Flash Disk of 8GB.</li><li>❖ Hard Disk 500GB Each</li><li>❖ Anti-virus of 3Keys Each</li></ul>	1.22Million

2.	HP DESIGN JET T830 MULT-FUNCTIONAL 3 IN 1 PLOTTER 36" A0 SCAN, COPY, PRINT.	<ul style="list-style-type: none"> <li>❖ Three in one colored Printer, 24", 36" and 44" in Length.</li> <li>❖ Should have at least two automatic front-loading roll feeds, smart roll switching, sheet feed and an integrated output stacking tray (from A4/A to A0/E, with up to 50 A1/D-size capacity), media bin, automatic cutter, scanner: Straight-through scan paper path for sheet and cardboard originals.</li> <li>❖ Enable the use of Apple or Android smartphone or tablet to print and scan from virtually anywhere.</li> <li>❖ Enable users to access and print projects from cloud when they are out of the office.</li> <li>❖ Enable automatically save work to the cloud when you print and scan.</li> <li>❖ Should scan both color and black and white documents.</li> <li>❖ Should have a minimum RAM of 1.5GB and Storage of 500GB hard disk for projects storage.</li> <li>❖ Should have a file processing memory of at least 128GB based on the 1.5GB of RAM</li> <li>❖ Should be able to load two paper rolls effortlessly, even when seated, with front loading and automatic paper-roll alignment.</li> <li>❖ Enable one to monitor media rolls, view printer status on the touch screen, and track jobs during printing.</li> <li>❖ Enable one to print and scan without drivers using a USB drive and directly email projects to the printer.</li> <li>❖ Should have a scan speed of; Color: up to 6.35cm/sec (2.5in/sec), Grayscale: up to 19.05cm/sec (7.5in/sec).</li> <li>❖ Full color and Speed of 25 seconds for a D-sized plot, and up to 110 plots per hour</li> <li>❖ Extreme Precision scan/copy output with resolution up to 2880 x 1440 dpi</li> <li>❖ Long-lasting 4-color pigment-based ink system</li> <li>❖ Plain paper handling up to 1.5 mm thick poster board</li> <li>❖ Minimum line thickness as little as 0.013 mm</li> <li>❖ Accurate line placement to within +/- 0.1%</li> <li>❖ Precision XD print driver technology for high-speed processing with maximum detail</li> <li>❖ New UltraChrome XD inks for long lasting brilliant color even on inexpensive plain paper</li> <li>❖ Operating Systems Supported: Windows XP (32- or 64-bit)</li> <li>❖ Nozzle Configuration — 720 nozzles per color (x5), Maximum Resolution 2880 x 1440 dpi.</li> </ul>	1.11 Million
3.	3 AR Blue Print Machine	<ul style="list-style-type: none"> <li>❖ Non Ammonia and Odorless</li> <li>❖ Fully automatic.</li> <li>❖ Odorless print outs.</li> <li>❖ Process and copy through the use of diazo white print paper.</li> <li>❖ Printing speeds up to 640 (35 fpm) m/hr</li> <li>❖ Print width of 1200 (48 in.) mm.</li> </ul>	0.9 Million
		<b>TOTAL</b>	<b>3.23M</b>

EMMANUEL B. NASONGO.  
Assistant Director-Surveys  
Cc.

CEM-Lands, Urban , Physical Planning/Housing

	<ul style="list-style-type: none"> <li>❖ speed processing with maximum detail</li> <li>❖ New UltraChrome XD inks for long lasting brilliant color even on inexpensive plain paper</li> <li>❖ Operating Systems Supported: Windows XP (32- or 64-bit)</li> <li>❖ Nozzle Configuration — 720 nozzles per color (x5), Maximum Resolution 2880 x 1440 dpi.xclsxds</li> </ul>			
3	<p><b>Blue Print Machine</b></p> <ul style="list-style-type: none"> <li>❖ Non Amonia and Odorless</li> <li>❖ Fully automatic.</li> <li>❖ Odorless print outs.</li> <li>❖ Process and copy through the use of diazo white print paper.</li> <li>❖ Printing speeds up to 640 (35 fpm) m/hr</li> <li>❖ Print width of 1200 (48 in.) mm.</li> </ul>	3		

### **TENDER EVALUATION CRETERIA**

After tender opening the tenders will be evaluated in 3 stages, namely

- a) Preliminary examination
- b) Technical examination
- c) Financial examination

#### **A.PRELIMINARY EXAMINATION**

##### **Mandatory requirements**

- Copy of certificate of registration/incorporation
- Copy of CR12 for limited companies
- Valid Tax compliance certificate issued by Kenya revenue authority ( KRA)
- Completely filled, signed and stamped price schedule
- Dully filled signed and stamped form of tender
- Copy of valid single business permit with relevant County Government authorities

**Note: Tenders who fail to meet the above mandatory requirements shall be considered Non-Responsive and their tenders will not be evaluated further**

#### **B.TECHNICAL EVALUATION**

The tender document shall be examined based on the instruction to Tenders which states as follows: In accordance to instruction to tenderers, the tenderers will be required to provide evidence for eligibility of the award of the tender by satisfying the employer of their eligibility and adequate resources to effectively execute the contract. The tenderer shall be required to attach the evidence of the provided information.

The awards of points in this section shall be as shown below:

##### **PARAMETER MAXIMUM POINTS**

- |                                |    |
|--------------------------------|----|
| 1. Proof of similar works----- | 30 |
| 11. Financial capability-----  | 25 |

Detailed scoring plan shall be shown in table 1 below		Max points
i	Proof of similar works	30
ii	Financial Capability (certified bank statement for the last (3) months	25
iii	Name, Address and Telephone of banks(supplier to provide bank detail)	15
iv	Proof of capacity to deliver the work within the required timeline	30

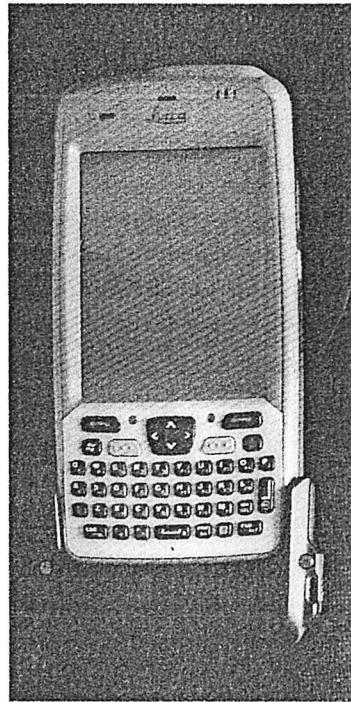
Any bidder who scores 70 points and above shall be considered for further evaluation

## STAGE2-FINANCIAL EVALUATION

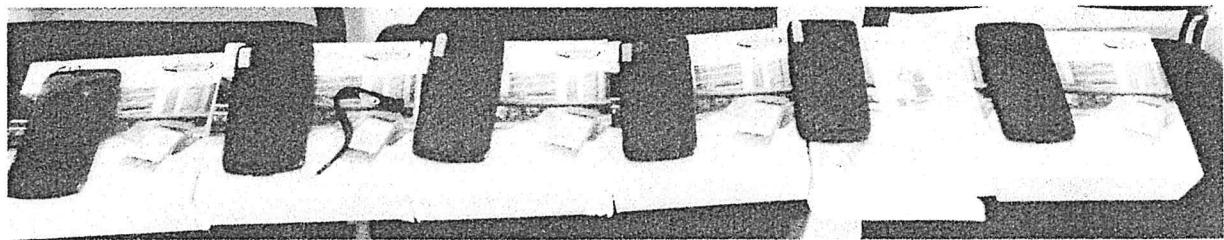
The evaluation team shall compare the prices offered by the tenderers.

## RECOMMENDATION

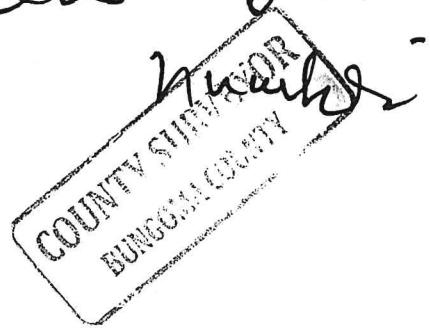
The committee shall recommend for award of the tender to the firm being the lowest evaluated bid.

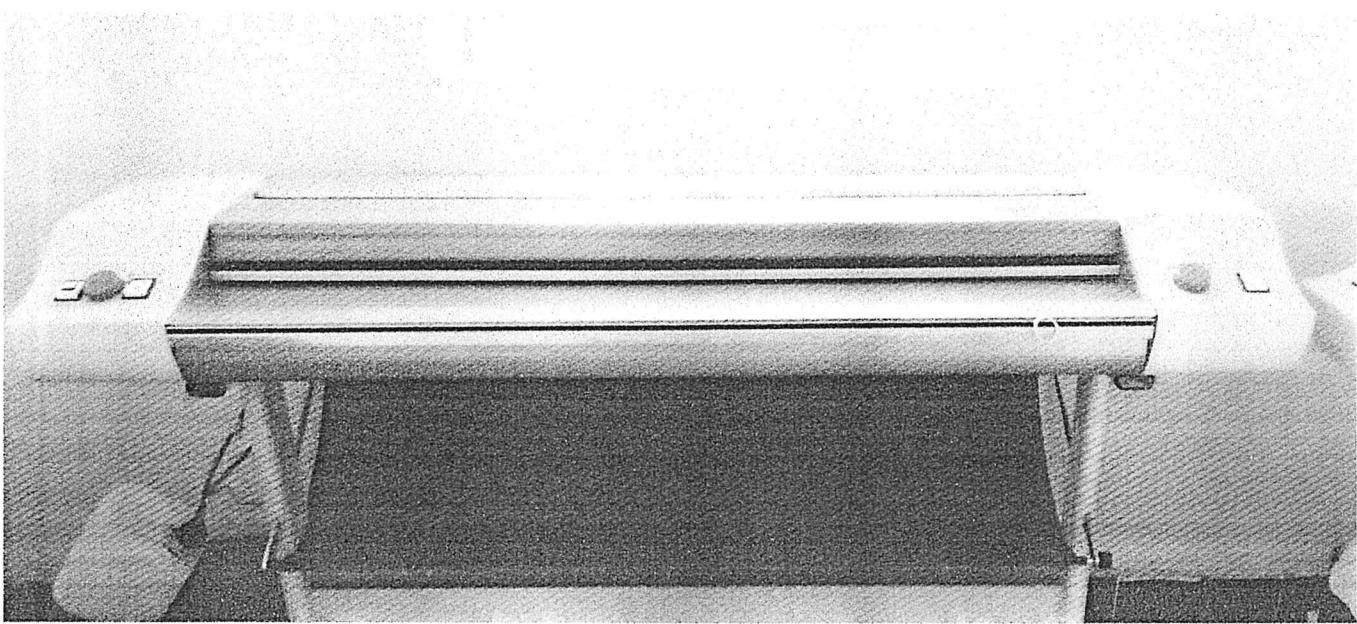


Sample handheld  
of  
3 in  
COUNTY SURVEYOR  
BERKSHIRE COUNTY  
NUMBER.

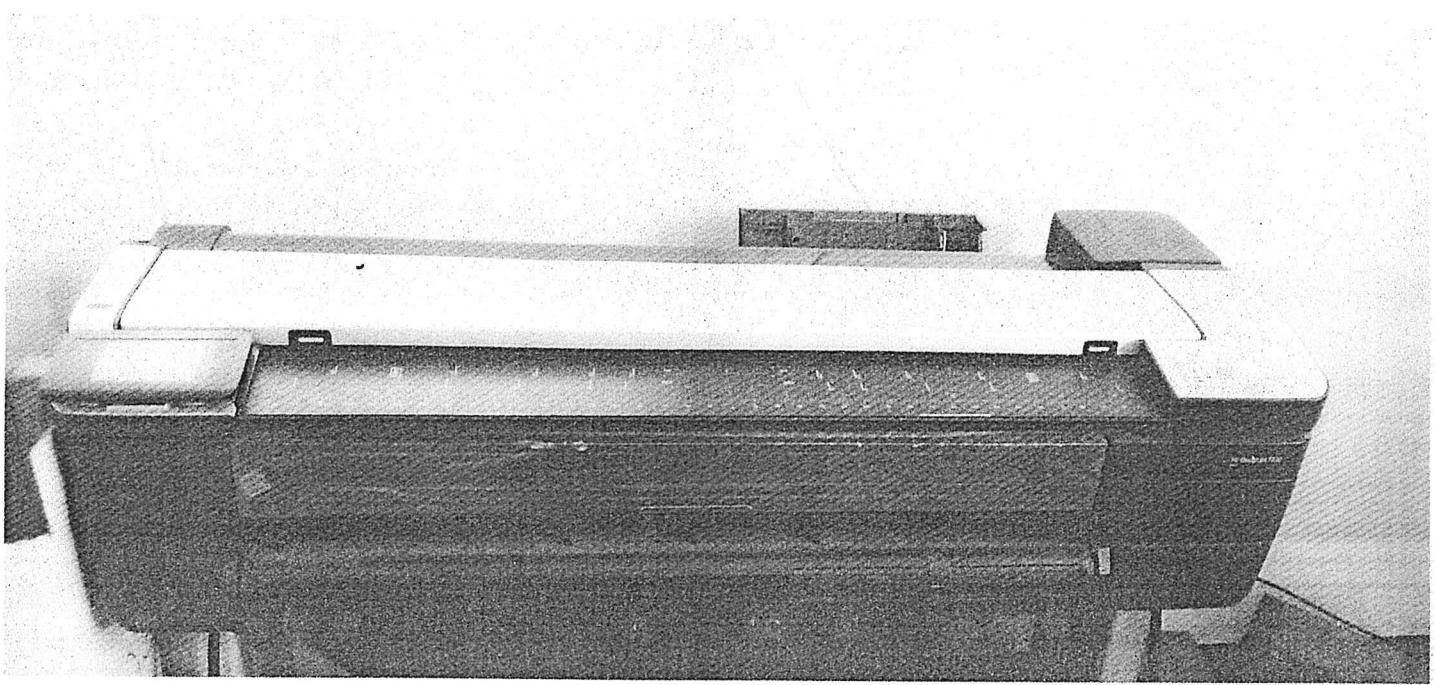


mobile markers - 6 in  
for DKT  
system

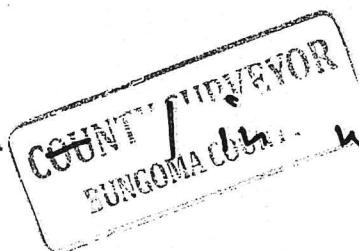




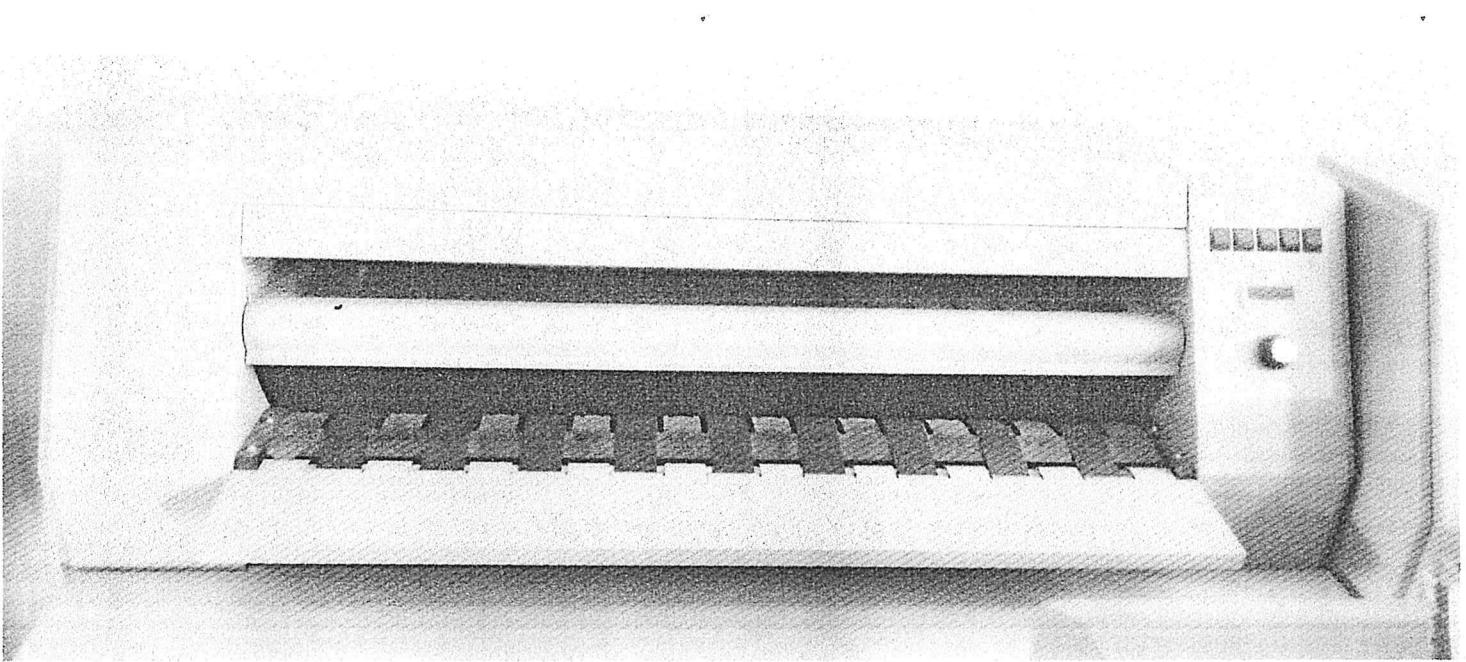
Ammonia Blue  
front <sup>in number</sup>  
COUNTY SURVEYOR  
SUNCOM COUNTY



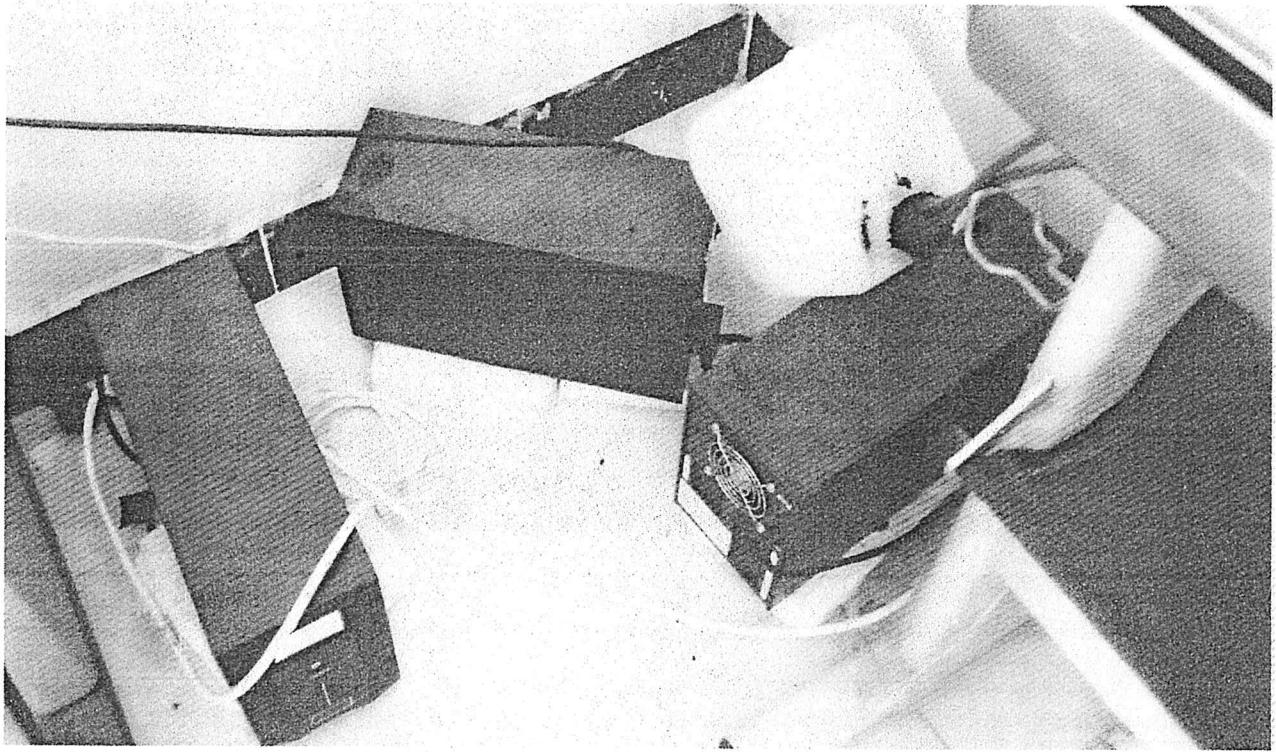
3 in 1 letter



number



Non Running  
Primer  
COUNTY SURVEYOR  
BUNCOMBE COUNTY  
in  
Number



UPS - 5 in numbers

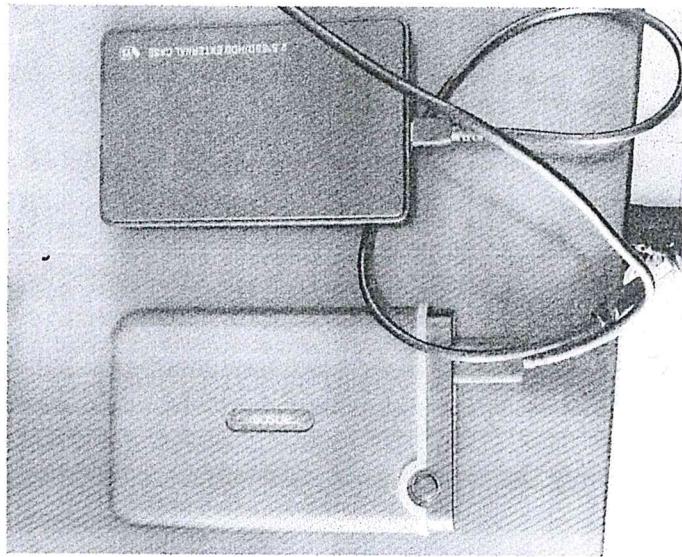
COUNTY SURVEYOR  
BUNGOMA COUNTY



Desktop Computer's -

2 in number.

COUNTY SURVEYOR  
BUNGOMA COUNTY



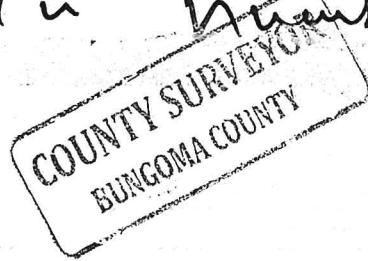
Hand Disk

COUNTY SHERIFF'S OFFICE  
BORGOMA COUNTY



Left to right -

Sign number





EPSON Printer.

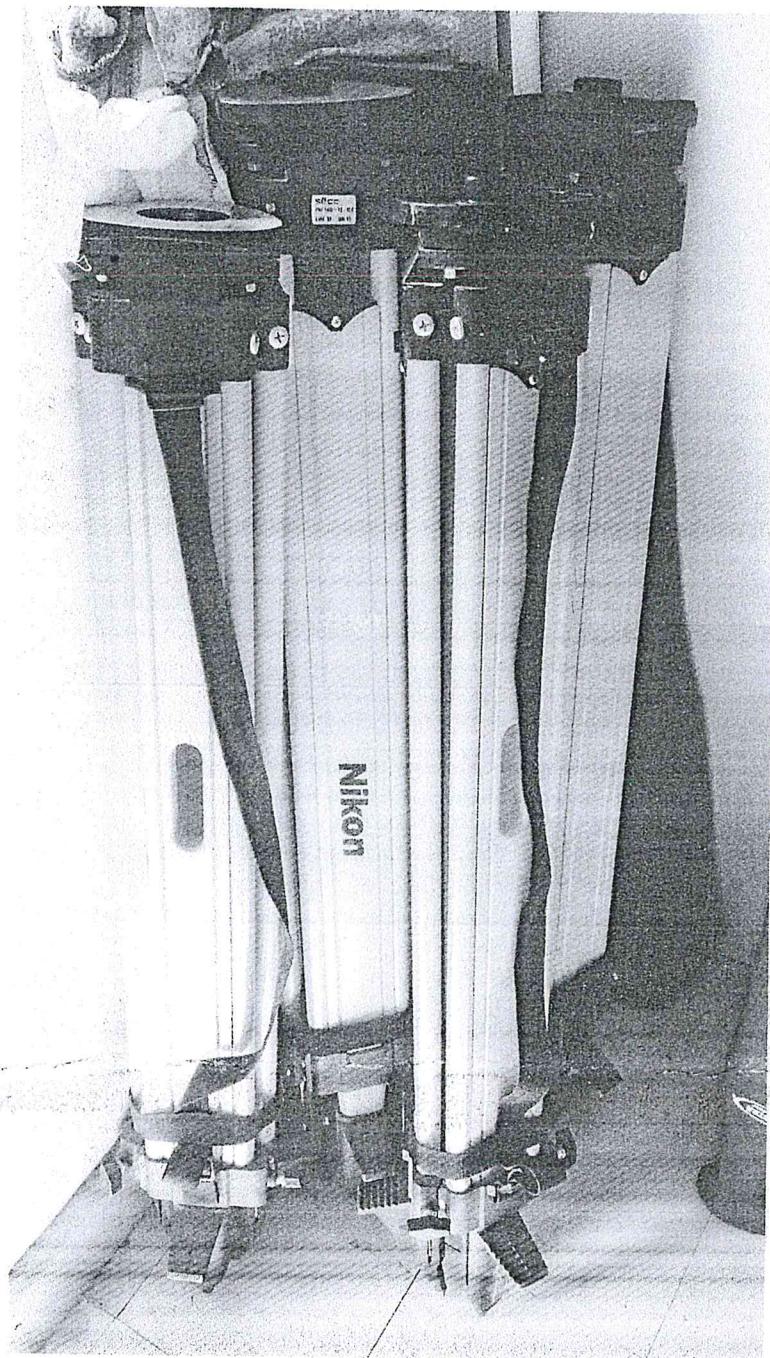


RTK



A black and white photograph of a survey marker. The marker is a vertical, cylindrical pole with a white cap and a black base. A black tripod-mounted survey instrument is attached to the top of the pole. A coiled black cable is attached to the side of the pole. A small, rectangular tag is attached to the side of the pole, oriented diagonally. The tag has a double-line border and contains the text "COUNTY SURVEYOR" on the top line and "BUNCOMBE COUNTY" on the bottom line, in a serif font.

COUNTY SURVEYOR  
BUNCOMBE COUNTY



RKE - STAFF  
TRIPOD STANDS  
5 in number

