

# GUIDELINES ON BOUNDARY IDENTIFICATION & DEMARCATION

Technical procedures to guide surveyors while opening land boundaries

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#### **Preamble**

There is a growing concern over the risks surveyors face while opening up boundaries. The concerns are linked to the safety threats posed to the surveyors while executing their work as professionals.

These guidelines are informed by the need to provide clearer procedural guidance in the identification and demarcation of boundaries. Under Section 3 of the Surveyors Registration Act, the Board is mandated to regulate and control the profession of surveyors and the activities of registered surveyors within Uganda, and to advise the Government in relation to those functions. These guidelines are, therefore, in line with the Board's mandate and fulfilment of its duties.

The guidelines are further bolstered by Article 40(2) of the Constitution of the Republic of Uganda, which provides that, every person in Uganda has the right to practice his or her profession and to carry on any lawful occupation, trade or business.

Upon this background, therefore, the Surveyors Registration Board finds it necessary to consolidate processes and procedures for consideration in the identification and demarcation of boundaries. This document aims to create a framework for identification, demarcation and documentation of boundaries by surveyors as professionals.

This is a working document and can be reviewed by SRB as the need arises.

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# LIST OF ABBREVIATIONS

SRB Surveyors Registration Board

IS Instructions to Survey

CSM Commissioner, Surveys & Mapping

DSM District Surveys & Mapping

CMS Corner Mark Stones

MZO Ministerial Zonal Offices

SRA Surveyors Registration Act

# **Interpretations**

In this document, unless the context otherwise requires:

- 1. **"Surveyor"** means a Registered Land Surveyor whose name is for the time being entered in the Register of SRB and has cleared all his or her practising licence dues for each year in practice.
- 2. "Survey report" means the professional/ technical survey document reporting the progress or final state of boundary opening exercise.
- 3. "Corner Mark Stones" means the marks placed at the bends and junctions on the boundaries of survey fields and subdivisions.
- 4. "Disputed Boundaries" means a dispute between the owners or occupiers of at least two neighbouring properties.

#### INTRODUCTION

Established cadastral boundaries and authoritative boundary marks often get lost, or their positions become uncertain to land owners and land users after completion of original surveys. This necessitates a surveyor to re-establish these boundaries to help owners enjoy exclusive rights as granted by laws and regulations of land use, land ownership and land development in Uganda.

Registered Surveyors are required to act professionally and ethically while dispensing their duties as provided under the **Surveyors Registration Act Cap 275**. The guidelines below will:

- a) Help in the event of a dispute over boundaries, to set out the facts in a manner that assists the parties.
- b) Enable, wherever possible, accurate and comprehensible information to be provided by Registered Surveyors regarding boundary opening of disputed boundaries.
- c) Guide the Registered Surveyor to provide accurate and comprehensive information regarding boundary opening.
- d) Give a standardised boundary opening report or structure of what a survey report should entail.
- e) Increase the level of transparency in the exercise of boundary opening.

# 1.PRELIMINARIES

#### 1.1 CONTACT WITH THE CLIENT

In the first place, the surveyor must endeavour to accurately understand the client's needs to explore possible ways of meeting them and offering suitable guidance. During the dialogue between the surveyor and the client, the surveyor should:

- a) Obtain information on the background, history of acquisition of the land, objective of the boundary opening, basis of charging, and anticipated timescale for carrying out the proposed work.
- b) Identify any key issues and requirements for the boundary opening.
- c) Consider any due diligence issues and potential professional conflicts of interest.
- d) Ascertain which issues are within their competence, the areas of specialty, and the deliverables.

- e) Ensure that the client presents all the relevant documentation on the land.
- f) Assess the need for reconnaissance, and how, if it should be carried out.

#### 1.2 CONTRACT NEGOTIATION

After dialogue, the client and the surveyor should agree on the Terms of Reference (TORs) of the exercise, the deliverables, and the cost. The following documentation must be prepared:

- a) A quotation by the surveyor, detailing the costs that will be required to accomplish the exercise.
- b) An engagement letter/letter of instruction between the client and the surveyor, detailing the terms of engagement.
- c) Receipt/acknowledgement of payment from client.

#### 1.1 DATA COLLECTION

- a) After a working relationship has been established between the surveyor and the client, the surveyor should proceed to collect information from the relevant offices that may include the Department of Surveys & Mapping, Department of Land Registration, Ministry Zonal Offices (MZOs), District Land Offices, District Land Boards, client, etc.
- b) The data obtained should include Maps, Deed plans, Cadastral prints and Topographic Map extracts, Orthophotos, JRJ extracts and any other that may be deemed necessary, such as earlier deed plans in existing certificates of title, where such historical information has been overwritten by current cadastre databases.
- c) The data obtained must be authenticated by the controlling/issuing authority.

#### 1.2 NOTIFICATION OF STAKEHOLDERS/ DUE DELIGENCE

- a) The following authorities should be notified of the upcoming boundary opening exercise: district staff surveyor, land controlling authorities; e.g., ULC, DLB, BLB, etc., area police OC station, Local Council 1 chairperson, neighbours, and any other stakeholders deemed necessary.
- b) The client (registered proprietor) should introduce the surveyor to the local authorities where the land is located.

- c) The surveyor should give a minimum of a week's notice to the stakeholders and ensure to get confirmation from the stakeholders confirming their no-objections about the exercise. (Standard Notice format is in Appendix 1)
- d) If the land in question is neighbouring/housing a security house, police installation, army barracks, or police prisons, the surveyor should notify the concerned authorities.

# 2. THE SURVEY

#### 2.1 PRE-FIELD MEETING

- a) A brief meeting should be held where self-introductions are conducted, an attendance form signed, photographs taken, and audios recorded. The registration status, location, and address of business of the surveyor must be established. The surveyor must also provide their valid practising certificate. It is important that key stakeholders provide copies of national IDs to further confirm their attendance.
- b) The attendance list should be stamped by the local authority leader available for the exercise.
- c) The attendance list should be a standard form providing for e-mails, telephone contacts and any other necessary information. (Standard attendance list format is provided in Appendix 2).
- d) The surveyor should give an overview of the exercise, briefly explaining the purpose of the survey to all stakeholders, in the presence of the client or their formally authorised agent.
- e) In case of poor stakeholder turn-up, the surveyor should inquire further the reason of absence of any affected party(s) before proceeding with field work.

# 2.2 SURVEYORS CONFERENCE, WHERE MORE THAN ONE SURVEYOR IS INVOLVED

In instances where the boundary opening is either a joint survey or involves more than one surveyor, then a brief meeting of the surveyors should be held before commencement of the fieldwork. The meeting should decide on the following:

- a) Assignment of duties; e.g., who is to carry out the survey measurements, the type of instrument to be used, the datum and coordinate system to be used, etc.
- b) The type of background data to be used; e.g., cadastral prints, copies of titles, JRJ extracts, etc.
- c) The timeframes for data capture, data entry, data analysis, setting out, report writing and dissemination, etc.
- d) When and what type of information a surveyor can report to their client; i.e., what findings can

be revealed before a final report is issued.

# 2.3 METHODOLOGY TO BE USED

- a) The surveyor should explain the background of the survey exercise, methodology to be used, source of data, and prints to be used in a simple language. The challenges and advantages foreseen can also be highlighted.
- b) From review of the collected data, the surveyor briefly explains the survey history of the land in question, noting obtainable accuracies and the certainties in which they can be redefined, any inconsistencies or errors, blunders noticed in datasets, and justification for the adopted dataset.
- c) The surveyor should also explain the length of time the exercise might take so that the attendees are not overly expectant.
- d) The surveyor needs to explain who meets the cost of the local council authorities, Police, and destroyed crops/developments, if any.

#### 2.4 BACKGROUND CHECK OF THE ISSUES INVOLVED

a) The pre-field meeting should be the opportunity for the surveyors involved to collect information from the other party, in cases where there are two opposing sides.

#### 2.5 CALLING OFF THE SURVEY

- a) Where the surveyors (in case of two or more surveyors) do not agree on any technical modalities, the exercise can be called off, until the differences have been ironed out.
- b) Where the owner of the property whose boundaries are to be opened or their agent is not in attendance, the exercise should be called off.
- c) Where the opposing side deliberately fails to show up and leaders of the area are in attendance, the exercise should not be called off.
- d) Where security advises that the exercise is not secure, the exercise should be called off.
- e) Where the working environment is tense or not friendly, or where the parties are not co-operative, the exercise can be called off.
- f) Where there is a court order or any administrative order directing that the survey is not conducted, it should be called off.

#### 2.6 THE FIELD EXERCISE

a) There should be a startup meeting, preferably on site, so that neighbours have no excuse of not attending. The on-site meeting also helps to inform the surveyor of any untold dispute.

- b) All the members present should sign the attendance list since, normally, people deny attendance in case matters arise and they are required as witnesses in court.
- c) The neighbours should identify themselves with identity cards in case of disputed land.
- d) During the meeting, the surveyors should explain in a layman's language, the method they intend to use to carry out the exercise.
- e) During the meeting, depending on the recommendations during the preliminaries, the agreed method should be used appropriately.
- f) For disputed land, temporary boundary markers (pickets) should be fixed, and not permanent mark stones, before analysis of results.
- g) Despite any party's wishes, requests or disagreements in regards to measurements, the surveyor(s) have a final decision on the technical instruments, operations, and procedures to be used, provided such are acceptable in the professional standards.

# 2.7 ANALYSIS OF RESULTS

- a) The surveyor should be granted permission to analyse the results by carrying out extra checks, sometimes including the neighbours plots, to confirm the results.
- b) During analysis, the surveyor may consult the parties and listen to any concerns raised. This enables acceptability of results since the parties have been involved in the exercise.
- c) The surveyor should point out in their report if during analysis, they realise points of departure or provide a satisfactory explanation in the event that there are disparities from positions communicated by earlier surveys.
- d) Analysis may be done in the field or the office, depending on the flexibility or complexity of the assignment.

### 2.8 SETTING OUT THE SURVEY

- a) Have a brief on-site meeting to explain the findings.
- **b)** Give the parties a brief description of how the overall exercise was carried out, including any technical challenges encountered.
- c) Show all the parties the positions established and. if they are all satisfied, fix the permanent boundary markers. If the parties are not satisfied, temporary markers should be fixed.
- **d**) If one of the parties or both are not satisfied with the results, they can engage another professional.
- e) Whether the parties agree or not, the surveyor should produce a report.

- **f**) Where the other party's neighbors are not in attendance or not in agreement, boundary positions should be marked temporarily.
- g) In cases where the survey extends beyond one day, the surveyors should convene a meeting at the site to explain the findings and show the positions of the boundary points fixed on the ground.
- **h)** No old mark stones found or wrongly placed should be removed until all the parties and surveyors agree. If the parties and surveyors fail to agree, the surveyors should put temporary markers.

#### 3.THE SURVEY REPORT

The general contents of a boundary opening report are introduction, background and issues, ownership, control and evidence used, field survey and methodology, findings and analysis, and conclusion/final technical opinion.

#### 3.1 INTRODUCTION

- a) The report should have the description and location of the land.
- b) The surveyor is expected to provide an overview of who issued the instructions (Client, District staff surveyor, Senior staff surveyor, Commissioner Surveys and Mapping, Court order, etc).
- c) The dates when the survey field work was carried out; i.e., start and finish dates.
- d) Witnesses, if any.
- e) An overview of the terms of reference (if any).
- f) Introduction of the team which carried out the exercise.

# 3.2 OBJECTIVES OF THE SURVEY

- a) A brief overview of the issues being addressed; i.e., what prompted the boundary opening.
- b) A concise history of the background to the problem (especially in cases when there is a dispute).

# 3.3 OWNERSHIP

- a) For registered land, the names of the current and previous registered proprietors of the subject land, plus the tenure of the land; i.e., Mailo, Freehold, or *Kibanja*.
- b) The area of the land in both acres and hectares as shown on the certificate of title or as identified by the owners.
- c) Description if land is untitled but surveyed.

# 3.4 REVIEW OF SURVEY HISTORY FOR THE LAND IN INTEREST

a) How historically the tenure block was surveyed.

- b) Current survey method used in that area.
- c) Relevant/Mandatory dataset to execute the assignment and any justification for their choice.
- d) Any gaps or inconsistences in the available data. Its weakness and strength such as data transformation or geo-referenced/digitally generated data, and how such gaps have been treated.

#### 3.5 SURVEY SPECIFICATIONS AND STANDARDS

- a) The surveyor should explain the datum, orientation, parameters, controls, witnesses, and evidence used.
- b) The source of the control data used; e.g., Department of Surveys and Mapping, MZO, District Land office, etc. If available, the Instruction to Survey number should be included.
- c) Documentary evidence used; e.g., copies of certificates of title, copies of sales agreements, copies of *bibanja* agreements, etc.
- d) Physical evidence/witness features; e.g., corner mark stones found intact on the ground, boundary trees / weed markers, fences, hedges, etc.
- e) Oral evidence; the knowledge people have about the subject land; i.e., neighbours or local authorities.
- f) Instruments, survey equipment and software.

#### 3.6 FIELD SURVEY AND METHODOLOGY

The surveyor should state:

- a) If there was any reconnaissance that was carried and the results.
- b) The Ground Measurement Operations; i.e., tapping, booking, RTK observation and setting out, etc (provide illustrations from survey records and surveyors' drawings).
- c) Data Processing such as CAD and GIS operations with any appropriate GIS software (provide illustrations from survey records and surveyors' drawings), GNSS post processing, and any other computations involved.
- d) Quality and Independent Checks, any redundant measurements, Linear and polygon measurements done for internal checks and external check of the cadastral layout.
- e) Any technical assumptions made.

#### 3.7 FINDINGS AND ANALYSIS

Salient findings/ features in a survey report on the ground

a) The surveyor should report on what the findings from the survey were.

- b) The surveyor should report on the corner mark stones found firm and in their rightful positions, missing mark stones, those disturbed and those in wrong places.
- c) The surveyor should report on the area of the subject plot on the ground versus area on title, buildings, roads and other important features on the subject plot, encroachment if any, and any other observations.
- d) The surveyor should show an independent verification of their own co-ordinates.
- e) The surveyor should report on the geometry on paper as laid out in the cadastral information as observed from the field, compared to the geometry on the ground. The following sections should be inserted in the analysis for each report, irrespective of whether they require attention or not for a particular site.
- f) Geographical position of beacons (for only surveys with geodetic datum) observed versus recorded: Highlight significant variations (include table illustrations), missing marks, replaced mark stones (refer to survey regulations for replacement procedure), deviations (refer to survey regulations for tolerance limits)
- g) Plot dimensions observed versus recorded: Highlight significant variations (include table or graphical illustrations).
- h) Plot area observed versus recorded.
- i) Plot access. Describe both planned roads and user ground roads, including their spatial impact on the plot (include graphical illustration).
- j) Development on the land. Describe the current land use at the time of survey, and any permanent features showed; e.g., walls, buildings, etc.
- k) Encroachments. Any detected encroachments and by how much (area and distance from a well-illustrated point on drawing).
- l) Any other encumbrances, such as tenants, community well, community drainages and drainage offshoots, foot path, etc.

#### 3.8 CONCLUSION /FINAL TECHNICAL OPINION

- a) The final technical opinion should be clear and concise. It must arise out of the objectives and findings from the survey.
- b) The surveyor must be able to provide an opinion on whether the plot exists on the ground and a technical opinion on contentious issues.
- c) Part of the findings should be illustrated by drawings, diagrams, pictures, and images that could assist in communicating the findings.
- d) The surveyor's findings should be based on the documents/data.
- e) Recommendations. A surveyor could make any of these recommendations: a re-survey, re-planning or cancellation of title or any other.

# 3.9 AUTHENTICATION OF THE REPORT

The report should be signed and stamped by the surveyor and submitted to the client.

# APPENDIX 1

NOTIFICATION OF INTENTION TO SURVEY
Date
The LC I Chairperson
Village
Parish
sub-county
sub-county
Dear Sir/Madam
RE: NOTIFICATION FOR BOUNDARY OPENING OFBLOCKPLOT
BELONGING TO
This notice is to inform you of our intention to open boundaries of Plot belonging to
in village,parish,
subcounty,district. On the
Date
Time
You are therefore requested to ensure that the neighbours are aware and present at the time of the exercise so that no dispute arises later.
Yours faithfully,
Surveyor
LC I Chairperson Remarks
•••••••••••••••••••••••••••••••••••••••
Cc: District Staff Surveyor
Cc; LC III chairperson
Cc: OC Police station
Cc: LC II chairperson
Cc: Client
Cc: File

# APPENDIX 2 SAMPLE STANDARD FORM TO BE SIGNED AS THE ATTENDANCE LIST

Stakeholders present for the s	•	
 held at		

NO.	NAME	DESIGNATION	TEL NO.	EMAIL	OTHER	SIGNATURE
					CONTACTS	