

IPRS

Survey and Mapping Dept

6/6/95

Registration Offices Draft Regulation:  
Index maps of Immovable Property Registration

1. Map Content

According to chapter III of the Registration Law, the property index map shows the boundaries for every property, their geographic location, property type as well as the property number which corresponds to the property registration in Kartela.

2. Map scale

Property index maps are compiled on the basis of the topographic maps according to the state grid system.

Rural Zones. The map will be at 1:2500. The size of the map sheet will be in the

Village urban zones. Where rural zone map at scale 1:2500 is not used, map at scale 1:1000 will be used. The map sheet size will be 60 x 90 cm with the local nomenclature for each village. District name, village name and the map number will be placed on the map sheet. (The central map sheet number is 55). If the village is not covered in one map sheet, or if this village is later extended, then the left map sheet number will be 54, the right one will be 54, the above one will be 45 and the down one will be 65.

City urban zones. Generally, maps at scale 1:500 will be used, the map sheet size will be 60 x 90 cm and the local nomenclature will be according to the built in this way: numbers increase from West to East and the letters in an alphabetic order from North to South.

Maps at scale 1:10000 and maps at scale 1: 25000, will be used for the zones that are not mentioned in the above paragraphs (forest, pasture, etc).

3. Cadastral Zones, parcels, and ownership.

Cadastral Zone is that part of land area which represents the cadastral unit for which the property numbers are unique. In the rural zone the cadastral zone represents the village. In the urban city zone, the cadastral zone represents the city or part of it.

The cadastral zone boundary of the village or the city corresponds with its administrative boundary. In big cities the cadastral zone division is done either by administrative or natural boundaries in the way that every zone should have 4000 - 5000 properties naming with a special code. The naming of these zones is based on the administrative division or on the basis of the regions which are in construction. For example: if in city we have three regions in construction, we will have this naming code: 8110, 8210, 8310. The first number (8) represents the city code, the second number (1,2,3) represents this region in construction, the two last numbers (10) represent the naming of the respective cadastral zones.

Exactness of boundaries of village cadastral zones is determined by a commission including representatives of the council of dignitaries of a neighbor village. Whereas, accurateness of the boundary between cadastral zones of village and city is determined by a commission including representatives of city's municipality, council of district, and the representative of council of dignitaries of respective village in following the decisions issued of competent organs for administrative boundaries. Certification of accurateness of boundaries is written in the field, and after signing by the commission is made legal to the local authorities. A copy of certification is delivered to the registration office. The line of boundary will be drawn by the case on maps that are available. For designating the holding's (parcels) boundaries are obliged the owners. Usually, marks of boundaries should be of stone with dimensions 12x12x50 cm, and every mark should be 10 cm above the ground.

To the line of boundary which is with wires and walls are not put marks. To the rivers where the place is not stable, the mark is put inside in a certain place. When the line of boundary pass through the line of water, marks are not put but the middle of line show the boundary line. The marks in turns are put in a way that they are apparent from one mark to next, and on curves will be put as many marks as it is possible to draw them on the map.

The parcel is a piece of land with a single connected boundary, which is "covered" by a single tenure status (e.g., "owned by Person X", "Co-Owned by Person X and Person Y", rented by Person A, etc.).

Non obvious boundaries of a parcel does not prevent measurement, but the survey will be made by the situation that exists on the ground in the presence of owners.

Channels during roads their skarpats form a parcel. The railway with its skarpats, channels, and place of materials are included in one parcel. The surface occupied of building is not taken as a separate parcel, it is taken as an object, but remains to the parcel inside which it is.

#### 4. Preparing index maps of registration

Index maps of registration are created through topographic surveying by taktimetric and aerofotogrametric method, and additional measurements with tape measure, total stations, and combining these methods. Contour of surveying may be the yellow line of city, village or cadastral zone. During the process of surveying for making index maps will be defined forms of plots of agricultural land and non-agricultural land, boundaries of property, boundaries of cadastral zone, living and commercial buildings, roads of communication and works on these roads, hydrographic, natural net, draining and irrigating channels and works on them, reservoirs, resting places, and cult works, etc.

On index maps all objects are shown by scaling, conventional marks associated with explaining conventional marks as kind of ownership through cadastral voices, are, fruit-trees area, olive-grove, vineyard, meadow, pasture, forest, special marks of non-agricultural land as those covered with water, salty land, sandy land, etc., marks that explain the sort of vegetation, particular nominations of different objects explaining the purpose of their character, names of living places, characteristic places, rivers, streams, roads, etc.

The biggest error to the allocation of boundary points of property should not be more

than the value 0.4 mm sh. (where sh- is the scale of map).

Scale 1:2500. Geodesic basement is built of increasing points of state net of triangulation through micro-triangulation with multiple geodesic traverse and polar method by total stations. The distance between these frequent points will be 600-1200 m.

The error of frequent points in reciprocal position is 0,15 mm sh.

Traverse lines are developed based on frequent points; in special cases in the form of closed polyhedra based on a point.

The length of traverse lines will be in the function of relative error 1/T as follow:

Scale	Length in km			
	T=700	T=1000	T=2000	T=3000
1:2500	0.8	1.1	2.2	3.2

Sides will be not more than 250m long when they are measured with tape measure, and not more than 180m they are optically measured, and in both cases not shorter than 50m.

Këndet e thyrjes of traverse line will be as closed as it is possible to the value 180 degree, they are measured with accurateness  $t=1'$  and non-closing of line is given by the formula:

$$f_k = 1.5 t n$$

Distance instrument-late is not to be more than 130m.

The original of te map for putting surveying data is made with paper of high quality with possible least deformations. Coordinative net is shown every 10 cm. Objects and boundaries are drawn with black color, hydrography with blue color.

Scales 1:500 and 1:1000. Geodesic basement is built in the form of triangulation, trilateration, electro-optic traverse lines and their combination, satisfying the graphic error 0,1mm sh.

The main parameters are given in the following table:

Form of basement	g.m.k of measuring angles	Relative error of side of enter	Relative error of sides	Length of sides (meter (m))	Allowed length of polyhedra km
Triangulation	+2"	1:200000	1:100000	2000-3000	-
Trilateration	-	-	1:50000	500-1500	-
Electro-optic traverse lines	+5"	-	1:30000	100-400	4

Traverse lines of frequentness	5"	-	1:8000	80-250	1,5
Traverse lines of work	30"	-	1:1000 - 1:3000	20-150	1.0

Basement of surveying may be developed even with multiple geodesic intersection

Values of angles of main geodesic basement will be not more than 30 degrees and not less 25 degrees. Directions are measured with the method of circling series.

Measuring horizontal angles onto the points of contour is done with just a position of field glass, whereas distances are optically measured. The distance instrument-late for the scale 1:500 should not be over 80m, and for the scale 1:1000, 100m. Objects and contours are drawn on sheet with black color and respective conventional marks are put.

### 5. Numbering Properties

Numbering properties is made for cadastral zone starting from its northwestern part and continues from PLANCHET to PLANCHET from west to east and on the second order from east to west and so on. Then, all the parcels are numbered - properties in spite of their use, excepting roads and channels, streams, rivers, etc., which ca be next to parcels or throughout cadastral zone, which are numbered in the end of numbering properties of cadastral zone.

Numbering properties within cadastral zones of city is made based on blocks limited by roads. The size of block depends on the number of properties and surface area. It is recommended that a block is to have not more than 400 parcels and a surface area not more than 10 hectare. Numbering blocks is made from the left to the right within a cadastral zone, starting from number 1. The numbers from one block to next one are in continuing.

Numbering properties within block is made with the same criterion as above starting from number 1. The number of a property in urban area of city will be for example:

2/27 where number 2 indicates that the property is on block number 2 and 27 indicates the number of parcel (property).

In case of apartments the number of property will be:

$$2/27 + 3 - 26$$

where: 2 is the number of block  
27 is the number of palace parcel  
3 is the number of staircase  
26 is the number of apartment

Every land parcel, within a cadastral zone takes a certain number which is not repeated within this cadastral zone. Parcels which are intersected of roads, railways, etc. take certain numbers by the divisions.

In the case when parcel is divided of an water line or pedestrians path, divisions do not

take specific numbers, but are linked with the possessive mark, for example: **Z**

All buildings and parts of parcel which do not take specific numbers are linked with the possessive mark when they belong to an owner.

Main road of a cadastral zone, should take just a number until it has not been intersected on that cadastral zone by rivers, streams or other main roads. If the same road pass through that cadastral zone after it has past through an other cadastral zone, then it takes another number.

Endless roads with permanent character that do not serve for agricultural purposes take numbers as public roads.

Private roads which do not have permanent character are not measured and do not take a specific number.

Rivers and streams which limit two cadastral zones, take in each zone the last number of cadastral zone in which they are i.e. each side divided of boundary (axe of river) take the last number of respective cadastral zone.

Public park take just a number to all roads and subways. Buildings which are in park take a specific number only for that surface area it occupies.

Squares which are linked with one or more roads take a specific number.

Islands between rivers which are not overflowed and are forested take a specific number.

In cities, subways between buildings are numbered with the continuing number of property, while main roads are numbered at the end of numbering properties of cadastral zone.

## 6. Dividing and joining of properties

Rural zone:

- Division of property

When a parcel (property) with number and without fraction is divided in some parts, each part take a new number with fraction of parcel number that is divided, for example if the property with no.15 i divided into three parts, the new properties will have numbers:  $15/1$ ;  $15/2$ ;  $15/3$ .

When a parcel (property) with fraction is divided into some parts, the first part of the number of new property will be that of undivided parcel and the second part (after fraction) will be the last number unused. For example, the parcel  $25/2$  (the last number after fraction is 8) is divided into 2 parts. The numbers of new properties created will be:  $25/9$  and  $25/10$  where 25 is the first part of number of undivided property, and 9 and 10 are second parts of the number of new properties. The number  $25/2$  of undivided property will not exist for properties which are created.

- Joining properties

When two or more properties are joint, the old numbers will not exist, the new property before fraction take the greatest number of the old properties and after fraction the last number unused. For example, the property 50/1 is joint with the property 65/3. The new property will have number 65/x where x will be the last number unused after fraction.

Urban zone of city:

- Division of property

When a property is divided into two or more parts each new property will take a new number, the old number is wiped out. The first part of new number will be that of first number (no. of block) and the second part (after fraction) will be the last number unused in that block. For example, the property with number 8/124 is divided into two property (the last number after fraction in block is 350). The new properties created will have numbers 8/351 and 8/352.

- Joining properties

When two or more properties are joint in one the numbers of old properties are wiped out, and the number of new property which is created will have in the first part (before fraction) the last number unused in that block. For example, the properties with numbers 6/37, 6/38 are joint in one property, the new property will have number 6/421 (The last number used in block 6 is 420).

## 7. Defining surface area

Surface area is calculated for each property (parcel) which is within a cadastral zone.

Surface area that is calculated through direct field measurements done with coordinates and planimeter.

Defining surface area with direct measurements is used for specific parcels, and it is done by creating regular geometric figures.

Calculating parcel with the coordinates of boundary points is usually done to parcels of city or when the land has a high value. When the boundary points of parcel are given in coordinates through digitalization the calculation is done for all parcels of cadastral zone. In order to check it, the calculation is done twice, with coordinate differences method and abscises differences method.

In all other cases the calculation of surface area is done with planimeter. Surface area of each parcel will be taken twice and the difference should not be more than the following values:

- 0.2 p at the scale 1:500
- 0.4 p at the scale 1:1000
- 1.0 p at the scale 1:2500

where p is the surface area in square meter.

For the method with planimeter the cadastral map is divided in groups of parcels. This

division of groups should have a regular geometric form and within the boundary of cadastral zone. Grouping should not have more than 50 properties (parcels) in spite of its size. The size of surface area of a group should not be more than the certain values as following according to the scale of map.

30 ha on map at the scale 1:2500

5 ha on map at the scale 1:1000

2 ha on map at the scale 1:500

- Numbering groups is done for each sheet of cadastral map to each cadastral zone. The parts outside the cadastral map are divided into groups (nominated by numbers or letters) and are put in planimetry for checking with analytical surface area of map. At the scale 1:2500 the difference must not be more than 0,8% of surface area.

To the parcel planimetry of a group, the sum of average readings on planimeter should be equal with the average readings on the group planimeter. The difference must not be more than 4-6 units of planimeter. The compensation is proportionally made with the parcel surface area.

- Parcels which have inside truell, are made in planimetry with truell as well, and then the surface area of truell based on measurements are reduced.

On planimetry form will be marked readings on planimeter for each parcel, and either surface area uncompensated and that compensated.

## 8. Parcel book

The parcel book has data for each cadastral zone and it is compiled based on the data that are taken of direct field measurements, planimetry forms, and other data. The property number, type of property, and surface area according to the type of property and truell are registered on it from these: surface area of building, slope, class of land, map index, and names of owners.

The registration on to the parcel book is made ordering the property numbers by the ordinal number and fractions. After the book is filled out the adding for each page is done, and at the end of it the surface areas that are on pages are taken, and the total of each page and according to the type of property is the same with the data of the planimetry form, direct measurements, or other sources of which are taken data.

## 9. Archiving maps

The original of index map of IPRS created in the beginning of initial registration of properties is saved in the central archive of IPRS.

Copies of this map are available for the archive of each registration office in districts, and one of them is saved as original.

Changes that may be occurred for the effect of property transactions which will be made of the registration office, are reflected in one of the original copies that it possess. In certain periods new copies with relevant changes are sent to the central archive. The registration office in response of owners' demands, based on the respective charge provides copies of index map or its

parts, without the coordinative net.

**SURVEYING AND MAPPING DEPARTMENT**

Tiranë, on 06.03.1995