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Colorado Planning Notebook

MAKING A LAND-USE SURVEY



P.5

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MAKING A LAND USE SURVEY/a simplified survey method for counties, districts and small municipalities.

This booklet is not intended as a substitute for the very fine booklet Mapping for Planning, published by the Public Administration Service (1313 East 60th Street, Chicago 37). Included therein are detailed instructions for making land use survey maps including existing land use, improvement values, lot area per family, age of buildings and tax delinquency, as well as a simplified set of land-use classification categories. We would strongly advise any larger city or metropolitan area to purchase Mapping for Planning and to follow that type of land classification program.

This booklet is intended as a condensation of land-use mapping instructions as presented in other publications, with special reference to situations peculiar to Colorado areas. It is also less technical in nature, enabling the average planning commissioner to understand the methods being used by the planner that may have been hired to make the survey, or, where the hiring of a competent planner is not feasible, to act as a "do-it-yourself" guide to enable the planning commissioners to personally perform or to supervise the land-use survey.

Colorado Planning Notebook P.4-2, ZONING/An Introductory Guide, should be read as a background to the material in this booklet.

1

MATERIALS

Base maps. In order to eliminate a great deal of guess work, the base map on which a land-use study is made should have sufficient detail to identify individual lots, as well as individual property ownerships. This may mean additional preparation of the maps by checking against assessors records, etc., but will save time later on in locating the termination of one land use and the beginning of another. Scale of maps to be used may vary, but a recommended minimum would be 1" = 1000' in rural areas and 1" = 200' in built-up areas. An overlap into adjoining jurisdictions is necessary to properly plan and zone. (See pp. 9 and 10, ZONING/An Introductory Guide).

Pencils and other Supplies. Colored pencils for quick color-code marking, and black lead pencils for notes will be needed, as well as a hand sharpener--preferably a razor blade. Erasers and a straight-edge may also be handy. A clip-board or piece of plywood will be needed to hold the map flat for marking.

Aerial photos. Most areas have been photographed from the air at some time or other by an aerial photo organization or by a government agency, such as the U. S. Geological Survey, U. S. Forest Service Department, The Soil Conservation Service, or the Commodity Stabilization Service. If available, a set of these photos will be found of great value in

land-use surveys. They can later be assembled into a mosaic and used for reference in planning and zoning meetings.

METHOD

Once the maps have been prepared, those persons that will do the actual survey can be assigned to survey areas. Except in large areas, it will be found less confusing to have only one or two survey teams. All persons taking part should be thoroughly briefed in survey techniques in order to assure a uniform system of marking.

The map used for field marking can be cut into strips or squares of a size convenient to fit the clip-board. The cut up map will also be more convenient for the draftsman when he transfers the information to a larger map.

A survey team of two is needed, so that one person may drive, while the other marks. A week-day in mid-morning or mid-afternoon is the best time for making the survey, since the slow moving car will need comparative freedom from traffic. It will be found most convenient to check only one side of a street at a time, so that the person marking the map is always nearest the side of the street he is checking.

2

TECHNIQUES OF MAPPING

The technique most generally used for indicating land uses is by checking with colored pencils. Uses are grouped together in similar categories, and a certain color is used to denote the use-group. During the actual survey from the automobile, uses are merely indicated with a check () in color on the lot or property where the use is located. Where secondary or accessory uses are also located a small circle may be used to indicate this use. Whenever unusual conditions exist, note may be made in lead pencil explaining the condition.

While the field notes may be very rough in form, when the information is later transferred to a display map it should be neat and easy to read. Each land-use will be filled in with color to cover the entire lot. Suggestions as to the method for doing this follow as an appendix. Where a map is to be reproduced in some way other than in color, it will be necessary to use a black and white pattern instead of colored pencils. These patterned materials are available commercially under such names as Zip-a-Tone, Graf-Tone and Blu-Zip.

The appendix shows an example of uses and the colors and patterns that are usually used to indicate them. Following this is an explanatory sheet showing more details on how to indicate conditions on the land-use map. Separate copies of these pages are available from the State Planning Division for use

by field workers.

RESIDENTIAL USES. There are three classes of residential uses indicated on land-use maps: single-family (low density), two-family (medium density) and apartment (high density). When a zoning resolution will indicate residential areas by density (that is, number of dwelling units per area of land) it is desirable to have a separate residential land-use map showing the residential classification in density rather than type of dwelling. Some residential land uses may be grouped together--such as tourist homes, hotels, motels, trailer courts--but should be indicated with the letters TH, H, M or T on the map.

BUSINESS USES. For zoning purposes it may be necessary to classify business uses into several different categories. For example, some types of business need to be located in close proximity to each residential neighborhood or small community, such as drug and grocery stores, barber and shoe repair shops, self-help laundries, filling stations, etc. These are classified as local businesses. Other businesses require a larger area of service in order to prosper, and these are classified as regional or general businesses. Examples are: banks, clothing and shoe stores, department stores, hardware stores, auto repair garages, book stores, restaurants, undertakers, taverns, liquor outlets, etc. Some businesses are operated as, and can be classed as, a form of recreation. These should be shown separately and indicated by initials to denote the type. Such recreation business uses would be: theaters (T), pool halls (P), swimming pools (SP), bowling alleys (BA), roller skating rinks (R-R), golf driving ranges (GR), and private golf courses (PG). Another category into which business uses can be classed is office businesses. These will include real-estate, insurance and other company offices where no goods are handled, as well as doctors' offices and clinics where no patients are hospitalized.

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INDUSTRIAL USES. Industrial uses are classified as either light or heavy. An industrial use is "heavy" when it is usually accompanied by excessive amounts of smoke, noise, fumes or is dangerous by being either a fire or explosion risk.

Warehousing is usually classified as a light industry, even though nothing is actually manufactured on the site. When desirable, open storage areas can be indicated by a symbol (OS) and vacant areas that are part of industrial sites can be indicated by leaving the center of the area blank. Railroads and public utilities are indicated as light industries, while railroad yards are a heavy industrial use.

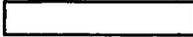
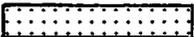
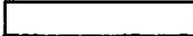
PUBLIC AND QUASI-PUBLIC. Any number of different categories can be used to differentiate public and quasi-public uses. Some of these are public parks, public schools, public buildings, churches, institutions, cemeteries, clubs, private schools, hospitals, etc. However, for rural areas and small communities

a smaller number of colors and uses will be necessary, so that one color will be used to indicate public and another for quasi-public, with symbols to denote the particular type of use. Some of these might be: for public uses: schools (E, JH, or HS), public administration buildings (A), libraries (L), parks (P), hospitals (H); for quasi-public uses: churches (CH), private schools (PS), clubs (C), hospitals (H), colleges or universities (U), etc.

AGRICULTURAL AND OPEN USES. Much of the land in rural areas will be classified as agricultural or open. However, depending upon the type of land-use plan or zoning classifications that may be desired from the basic land-use survey, any number of sub-classifications can be made by placing various symbols on the agricultural and open areas. Some of these might be crop land (AC), grazing land (AG), forested or wooded areas (W), gravel pits or quarries (Q), airports (A), nurseries (N), cemeteries (C), riding stables (R), etc.

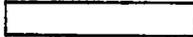
VACANT LAND. Land indicated as vacant, will be that land that is idle and not used for any other use such as agriculture or recreation. A note will usually need to be made as to the condition of vacant land, i.e. flat, grassed, wooded, swampy, etc.

LAND USE SYMBOLS FOR RURAL AREAS AND SMALL COMMUNITIES

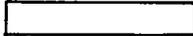
PRISMACOLOR	NOS	<u>R E S I D E N T I A L</u>	ZIP-A-TONE	NOS
	915	Single family (low density)		3
	939	Two family (medium density)		4 1
	946	Multi family (high density)		8 5
	931	hotel (H), motel (M), trailer court (TC), tourist home (TH), boarding house (BH) etc		5 6

B U S I N E S S

Neighborhood or local

	926	grocer, barber, drugs, shoe repair, beauty parlor, filling station, self-help laundry etc		2 2
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Regional or general

	923	bank, clothing, shoe, or furniture store, department store, undertaker, restaurant, tavern etc		2 4
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Recreational

	930	theater (T), pool hall (PH), private swimming pool (SP), roller rink (RR), bowling alley (BA), golf driving range (GR), private golf course (G) etc		9 7
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Office

	929	clinics, real estate, insurance, etc		5 2
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I N D U S T R I A L

	936	Light		5 4
	935	Heavy		7

P U B L I C U S E S

	909	schools (E, JH, HS), public administration buildings (A), libraries (L), hospitals (H), parks (P), golf course (G)		7 7
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Q U A S I P U B L I C U S E S

	903	churches (CH), private schools (PS), clubs (C), private or church hospitals (H), colleges or universities (U), nursing homes (N) etc		9 2
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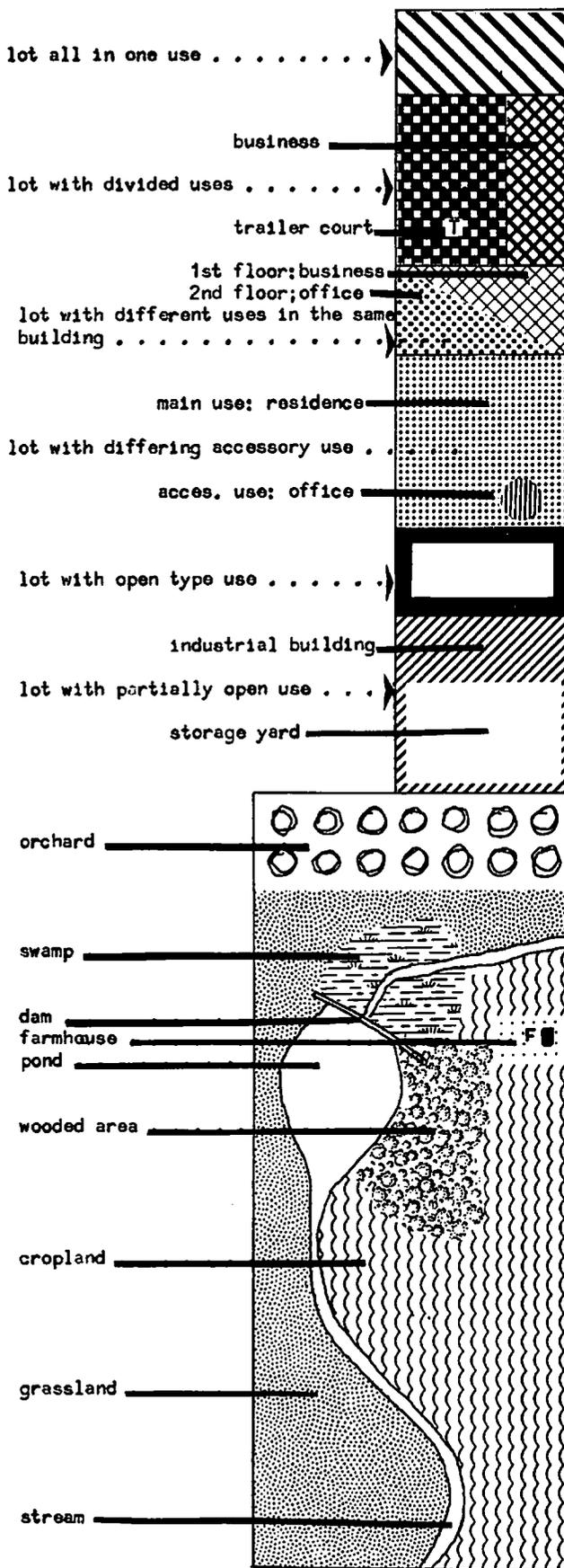
A G R I C U L T U R A L U S E S * O P E N U S E S

	912	cemeteries (C), gravel pits and quarries (Q), riding stables (R), farms (F), airports (A), nurseries (N) etc		A A
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V A C A N T



EXAMPLES OF THE USE OF LAND-USE SYMBOLS



- † † † †
† † † †
† † † † cemetery
- ⚡ mine
- ⊗ oil well
- gas well
- +—+—+—+— railroad
- sewage plant
- ▭ trailer house
- billboard
- ▲ church
- ▲ public park
- school
- ▲ F fire station
- ✈ airfield
- 🚗 parking area
- ⊕ hospital
- T ■ OR S transformer- substation
- ▲ playground

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